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ADDRESSES.

ADDRESS DELIVERED AT THE OPENING OF THE GARRETT MEMORIAL BUILDING, PENNSYLVANIA HOSPITAL.

PHILADELPHIA, APRIL 23, 1897.

BY J. M. DA COSTA, M.D., LL.D.
PHILADELPHIA, PA.

It is difficult for anyone intimately connected with an institution so old and renowned as the Pennsylvania Hospital to estimate fully the influence on thought and action of its very antiquity and renown. From the rooms that preceded the one we inaugurate, from the old rotunda, from the newer building in which until now successive generations of eager students assembled, have gone forth lessons that stamped themselves into the professional mind; lessons that stood by the listener in many a trial; lessons of readiness, of expertness, of cool determination in the surgeon; of profound analysis, of keen detection, of skill in meeting untoward symptoms, in the physician. In the rooms that were anterior to this, have stood and taught those who were not unworthy successors to Rush, who for thirty years was the most conspicuous medical figure in this hospital, as indeed, by his learning, captivating eloquence and ardent zeal he was the most conspicuous figure in the profession in the United States; and to Physick, the dignified surgeon, who bringing with him into our century the appearance and manner of another time, stood before his class with his hair powdered and clubbed, their idol, as in the tones of his cultivated voice he gave admirable illustrations of the conservative surgery of which he was the great exponent. In those rooms taught John K. Mitchell, the versatile and gifted, with the eye of genius foreseeing the part minute organisms play in the production of disease; George B. Wood, as methodical and accurate in his statements at the bedside as everywhere in his respected career; William Pepper, clear in his descriptions and consummate in unraveling obscure processes; William Gerhard, take him for all in all, the greatest observer and clinician America has produced; John F. Meigs, inheriting with his famous medical name an interest in this hospital from the illustrious and inimitable teacher whom also it is our boast to have had on our list, and showing here the same skill and kindness that made him the most sought after physician in the community. In the old rooms also has been heard the voice of Barton, the pride of his colleagues, whose wonderful skill and ingenuity remained a tradition for long years, joined to regret for the early retirement from a profession in which, still young, he attained the first rank; of Norris, the truthful, honest, conscientious gentleman and teacher; of Joseph Pancoast, the brilliant surgical artist, devising processes that seemed to be the result of intuition, and practising long before it was taught, a kind of antiseptic surgery, of which he himself did not recognize the importance or wider application; and of Agnew, the most esteemed man of our day in the American profession, cool, skilful, daring, yet of the soundest judgment, and a clear, concise, admirable teacher.

Thus from the days, 130 years ago, when Bond enthusiastically, with the full approbation of the managers, introduced clinical teaching into the Pennsylvania Hospital, and therefore on this continent—for it was in this hospital that the first bedside instruction in medicine was given—up to our time, there has been a succession of men bestowing publicly their best thought and experience, without reward, or thought of reward, on those who were to come after them.

It is scarcely possible for one who has been long associated with this hospital, and watched its workings with the eye of affection, to abstain from mentioning the present and his colleagues. But if I may not speak of the living, I know and feel the influence they exert; I am aware of the love they bear this ancient and renowned institution; I see and hear in many ways how worthily they strive to emulate and equal the best records of the past, and to let the teachings of the Pennsylvania Hospital be distinguished, as in the past, for truthful exposition, sound practice, for enlightened, not blind, conservatism, for earnest wish and endeavor to contribute to medical progress.

The traits of the many distinguished teachers that have been connected with the hospital, and the influence of the character of the hospital itself, have made indeed a great school of both practical medicine and surgery developing on rational lines. The men have formed part of the hospital, the hospital has formed part of the men. Nor is it only by oral teaching that the Pennsylvania Hospital has been helping to mold and guide the generations that have come here for instruction. It has also done its part in addressing the wider audiences to be reached through writings. It has given many an enduring gift to the profession at large. From this hospital has emanated or been chiefly promulgated the simplest, most direct and most useful treatment of fractures, recognized and commended the world over; the method of manipulation in the reductions of dislocations; the use of animal ligatures in surgery; the distinction of typhoid fever as a separate form of fever in America, and as preëminently the fever of this country; some of the earliest, and to this day the best, descriptions of remittent fever and its consequences; the connection of joint affections with spinal diseases; the now universally adopted treatment of sunstroke by ice, and other forms of treatment that have become standard. To this, and it is but a partial list, may be added the description of many new operative processes by such masters in the art as Barton, Pancoast, Agnew, Levis; essays and clinical lectures innumerable by observers

like Gerhard, Stewardson, Pepper and Hutchinson. And all have the same stamp of directness, truthfulness, careful observation and practical value. It is greatly to be regretted that so much of this literature is scattered, and has not been collected in the way Guy's Hospital and other great hospitals bring together the work of their men. Some years ago the attempt was made, and two volumes were issued; but the undertaking had to be abandoned with reluctance on account of the expense, with all the greater reluctance because the volumes were most warmly received and lauded.

But to return to the clinical teaching of the hospital. It has taken a profound hold on the medical mind of the country, more profound, perhaps, than we who live in large centers realize. If I may be pardoned for speaking of what has happened to me personally, and of what is, I know, equally the experience of my colleagues; I have often, when summoned out of town into a remote region, met a physician who, as soon as the immediate cause of our conference had been attended to, would ask me about some person whose malady he had heard expounded ten, fifteen, or twenty years before at the Pennsylvania Hospital; or quote, in support of his view of the disorder before us, a case there seen, and describe it so vividly that it seemed as if it had been but yesterday met with. And once, in the wilds of Colorado, encountering a middle-aged man who introduced himself to me he asked, almost as his first remark, "Did the patient brought before us at a clinic," the date of which he mentioned, "recover"? "What were the subsequent symptoms?" "And did all turn out as supposed?" I am ashamed to say his memory of all the circumstances was better than mine, and I could only give him a general answer, which, I fear, lowered me greatly in his estimation.

This wide diffusion of knowledge, this living interest in the doings of a hospital, is one of the advantages of clinical teaching, and it is certain that the hospital that neglects it, neglects a great means of doing widespread good. Moreover, it shuts itself off from the world; it has no ardent friends everywhere with its name on their tongues; it becomes purely local in its character and aims. It never takes rank with the first institutions of its kind, and must be content with a second- or third-rate reputation. Establishments for the sick existed in the time of the Romans. Hospitals, as we understand the term, have been founded since the fourth century. They were spoken of in the Council of Nicæa in the year 325 as institutions well known and deserving support and encouragement. The Hôtel Dieu, with its motto, *Medicus et Hospes*, began to receive the sick and destitute about the year 600. The Grand Hospital of Milan, with its several thousand patients, occupies the same building it did in 1456. But who has heard or knows anything of these hospitals, unless from their walls has gone forth something that has taught and been made of use to others; something that, in the minds of regardful men, has become identified with the progress of investigation and of ideas; something that, thrown on the billows of thought, has been carried far onward in the ocean of knowledge.

Clinical teaching, rightly conducted, is a benefit to the sick. There is an opinion that it is only of use to the medical profession, and especially to those about to enter it. To them, indeed, it is invaluable, and through them to whole communities. But it is valuable, too, to the patients themselves. The very publicity of it, the hundreds of critical eyes with which it is observed, ensure that the best thought is given to the helpless and the sick. There must be accuracy, there must be the most strenuous efforts for relief, where there are many keen watchers; and the influence of all this is that the habit thus acquired is transferred toward work, which in its turn becomes more exact. There is very rarely any objection on the part of the patient to having his case publicly investigated. On the contrary, he likes it; he regards it as a mark of interest. To most teachers it has happened to see offended women bursting into tears, because, owing to inability to do so in the time allotted, they had not been taken to the clinic room after being spoken to about it; they were provoked at the favoritism thought to have been shown. Then it must be always remembered that the very ill, or any whom it might possibly injure, are not brought before a class. No one with a spark of humanity thinks of such a thing. Certainly in this hospital the claims of patients have never been subordinated to bedside teaching, and judging by the past, and the record to which we hold, never will be. We recognize, indeed, that we bring to this new room much from the time gone by. We are sensible that the old memories, the old traditions, the old spirit, are moving with us into this admirably arranged edifice. We feel their power, and no member of this ancient hospital can be unmindful of the strength of their hold on his fullest exertions and truest sympathies.

But the splendid room in which we are assembled has other uses than merely those connected with teaching. It is but a part of this Garrett Memorial Building which will be alike a lasting monument to the generous philanthropists that endowed it, and to the forethought, the sagacity, the advanced knowledge of those that planned it. Here is seen in a completeness, nowhere, I believe, as yet equaled, an operating pavilion in which to make modern surgical treatment with its marvelous antiseptic results even more than ordinarily successful. The most minute details are attended to; years of professional experience have contributed to their elaboration. It is the perfection of mechanical ingenuity, the apotheosis of cleanliness, and, with its numerous attractive appliances, its movable tables, its large brass instruments, its adjacent tiled and marble dressing rooms, would be fascinating, if one could only prevent a thought of the grim purpose of all this beauty from entering the mind. Then in this building with its combinations of means, other most valuable arrangements are manifest. There is a room devoted exclusively to operations upon those with infectious diseases that can be filled with live steam at a slight pressure; a room for the employ of the X-rays; there is electric apparatus for resuscitation and treatment; there are rooms for etherization. Then in other parts of the building, for it is more than a mere structure for lecturing and operating purposes, are rooms with every facility for immediate treatment of those brought here too ill or too severely injured to be moved further; there are "quiet" or recovery wards for those whom noise might injure, or who have passed the worst stages; and receiving wards for the reception and distribution to the appropriate places of all patients who are not too ill to be at once assigned to the main medical or surgical hospital. Here then is a building of wide intent and beneficent purpose, planned to meet what years of thought and experience have shown to be most desirable, and exe-

cuted in a manner that makes it not only a credit to the Pennsylvania Hospital, but to the city and the country.

This building, too, is only one of the improvements that the present Board of Managers has gradually effected. They have step by step transformed the hospital. An admirable school for nurses with a separate building erected by the generosity of the Misses Blanchard; a surgical hospital due to the munificence of the family of their former president, Wistar Morris, whose memory it worthily celebrates; an endowed outdoor department with every facility, the gift of William E. Garrett, Jr., one of the same family that gives this Memorial Building; the reconstruction of the old building in a manner that makes it the equal of any modern hospital; now this thoroughly adapted structure—surely all this shows careful thought, farsighted action. The community which believes in them has little by little, occasionally in large sums, supplied them with the means, and, as it is seen how they are used, the springs of benevolence are expanding into broad streams. But they never can be too broad; the need is still great. This hospital, once to a considerable extent supported by those who entered it, is now almost entirely a free hospital, open at all times to those of every nationality and every creed. It still spends more than its income in their support; but, owing to the feeling of attachment and pride which the community has for it, and the reliance on a management which one of my former colleagues in an address has described as an active, intelligent body which never wastes, never misappropriates, it meets all demands and increases steadily. It instinctively attracts to it both in its managers and warm friends those who love their fellowmen, who have a genius for philanthropy, and calls forth the large bequests that, in virtue of the affection and trust it has inspired, have alone made possible the changes in this hospital which are so splendidly transforming it. If it continues to grow on these broad lines it will not be long before, in addition to its antiquity and renown, it will be cited as being one of the foremost developments of the hospital idea in its best form among the modern hospitals anywhere. How all this would have delighted the benevolent souls who founded it! How gladly Bond would be with us today, viewing the growth of what his humanity suggested; and if, at the first meeting of the managers in December, 1756, to inspect the new wards before the sick were admitted, they could have forseen to what the hospital would attain what would have been their gratification! Perhaps the the then president of the board, the great American, Benjamin Franklin, did; and we can see in the pleasure in his benign face, in the light in his large gray eyes, that there has come to him the vision of what, through the natural sciences so dear to him, through the intelligent care of successors as worthy and as true to their trust as the friends that there surrounded him, had grown to be structures as complete as his imagination could have pictured, and as full of such appliances as his genius would have delighted in, and have surely added to. If there could come to us from that vision into the unseen world an expression of the appreciation it occasioned, warm words of approbation would surely reach those whose crowned efforts we are today inspecting.

But in all the changes you, the directors of this great charity, are effecting, one appeal we still make to you for action in a matter we know you are contemplating, and the importance of which our daily work forces on us. Give us a laboratory, commensurate with the dignity and reputation of this hospital. It will be one more claim to gratitude, not only of the profession, but of the ill and injured, and in its far-reaching results, of science and of posterity. It is no longer possible, it is becoming scarcely conceivable, that physician or surgeon can recognize disease as completely, or treat it as well as it can be treated, without the aid of laboratory facilities. Good work he may still do; but it will not be his best, and very far from the best that can be done. The time has passed for mere bedside labor, and in justice to the sick and injured, in justice to those exposed to possible contagion, laboratory work must supplement or guide professional effort. Crown then your work with what is a recognized need of the day, crown it with what will have the beginnings in it to develop with the wants a portentous future; crown it with a laboratory that now and in times to come will gladden those who look for guidance to this famed institution.

But we know well that for the great plan of which the completed structure we are now in is but a part, neither means nor opportunity exists to accomplish everything at once. For all that has been done already there is true appreciation and gratitude. For the building which is formally opened today let us here express it: It stands as a monument of generosity, of enlightment, and of ideas carried to perfect conclusion. Noble was the thought that conceived it; noble the thought in one who bore the name of a family that was already among the great benefactors of this hospital to add to a large bequest all that was needed to make the ardently desired beneficent plans a reality. In this Garrett Memorial Building, with an equipment in which nothing that the most advanced science can suggest is absent, pain is to be abolished, the best possible results ensured to the injured and distressed. From here lessons will go forth that will penetrate into every hamlet. Men now, and men in years to come, will, during many an arduous struggle of a long career, turn to it with a sense of gratitude to the generous donor through whose aid many of their difficulties are smoothed, by giving them an opportunity of witnessing how difficulties could be best overcome. And, further, he who is brought to these emergency wards, stricken or so injured that he can not be moved another step without the gravest risk, the most destitute, the most wealthy, will be treated with appliances and in a manner that not many years ago the most powerful of the earth could not have commanded, and will learn to give thanks reverently that there were noble-minded souls that so splendidly and thoughtfully provided for his dire necessities.

ADDRESS

BY THOMAS G. MORTON, M.D.

PROFESSOR OF ORTHOPEDIC SURGERY IN THE PHILADELPHIA POLYCLINIC; SURGEON TO THE PENNSYLVANIA HOSPITAL, THE ORTHOPEDIC HOSPITAL, ETC.

We are here assembled to celebrate with appropriate ceremony the opening of the latest addition to the resources of the Pennsylvania Hospital, the "Walter Garrett Memorial," designed to be occupied as a reception pavilion, a clinical, operative and lecture hall and a surgical ward for children. The managers of the hospital, ever mindful of the best interests of the institution under their care, having decided that increased facilities must be provided in order to keep pace with the modern rapid strides of

improvements in surgery, one year ago authorized the construction of this building. Under the supervision and direction of Mr. Addison Hutton and Dr. Thomas S. K. Morton, this memorial building has been planned and constructed. No pains or expense have been spared in the effort to make this the equal of, if not superior to, any other structure of its description in the world. I may add that it has been erected through the generosity of a member of a family of philanthropists, to whom the hospital is already greatly indebted for very generous gifts.

Permit me briefly to invite your attention to the admirable internal arrangements of this building. All the sick and injured brought to the hospital, either by our ambulance, the police patrol or otherwise, are admitted at the southern entrance of the main hall, on the first floor; where all details connected with the patient are immediately recorded. Male patients are taken into the large reception ward on the right of the hall, and female patients and children into a similar ward on the left.

Patients with illness or injuries which do not require their admission into the general wards will here receive appropriate temporary treatment, after which they will be dismissed and directed to return to the out-patient department on Spruce Street.

Patients who are to remain in the hospital for treatment are transferred from the reception ward to the large room beyond, where they will be bathed and otherwise put in proper condition before being taken to the main wards in the hospital appropriate to their disease or injury.

Should an important surgical operation be required, after the same preliminaries as far as possible, the patient will be brought by the elevator up to this hall.

On the first floor, conveniently situated, there are also baths and lavatories, flushing sinks, a steam closet where bedding and clothing may be warmed or dried rapidly, and rooms for ticketing, bagging and storing clothing. One small room contains a steam sterilizing oven, in which infected clothing can be thoroughly cleansed and germs and vermin destroyed. At the northern end of the corridor is a well-appointed diet kitchen.

In the center of the building on the eastern side is located a capacious elevator, of most approved pattern; it is surrounded by a beautiful broad marble stairway. From the first floor there is direct communication with the basement of the hospital by an enclosed corridor, thus affording ready access to all the various wards. This building, it will be seen, therefore becomes the center of distribution of patients to the entire hospital.

All patients admitted to the hospital between sunset and morning will be temporarily accommodated in this building, so that there need not be any disturbance during the night in the general wards, which heretofore has often been unavoidable.

On the second floor, upon which we are at present, the complete series of rooms and arrangements to facilitate modern surgical purposes are not equaled by those of any other hospital in the world. Large double doors lead from the landing or stairway into this commodious clinical or main operating hall. Situated to either side of the corridor and in communication with this clinical hall are rooms where patients can be etherized before being brought into this room for operation.

This hall has excellent acoustic properties, and it is brilliantly lighted by the ample, glazed dome during the day, and by Welsbach and electric lights at night. The students or spectators enter by a special gate upon Eighth Street near Spruce, and on approaching this hall will find, on the landing halfway up, a coat and toilet room. The seats, which as you notice are in seven tiers, number in all two hundred, are so arranged that there is no obstruction to observation from any portion of the room.

On either side of this operating space, as you may have observed, are sinks, flushing-tanks, wash-basins and pipes for bringing steam for sterilizing purposes. There are also two large water sterilizers, the largest ever made, and here, too, are steam closets for heating blankets, etc., racks for supporting glass reservoirs holding antiseptic solutions; here are also movable glass tables for the dressings and instruments. Behind, and to one side of this operating space, there are doors which open to the dressing rooms for nurses, utilizing for this purpose the space beneath the seats. Nurses who are to assist in the operations, here prepare themselves, their hands and clothing, with the same scrupulous care as the surgeons.

On the other side are rooms in which the sterilized dressings for the entire hospital will be manufactured in accordance with the requirements of antisepsis, with the aid of four high pressure steam sterilizers. Retiring rooms for patients recovering from the effects of anesthetics are also suitably and conveniently arranged. A novel feature on this floor is a room where operations may be performed on patients having virulent and dangerous diseases; after which everything in the room will be subjected to the antiseptic action of live steam, thus destroying all germs and overcoming, in great measure, the danger of communicating contagious disease.

The small operating rooms also situated on this floor are most convenient and complete. An enclosed corridor connects with the main floor of the surgical pavilions of the hospital, so that patients may be transported by the most direct route to the other parts of the building, or from thence to this hall.

On the third floor is a spacious children's ward, capable of accommodating twenty-five beds, with all the conveniences for the little patients and their nurses, including a bright playroom and sun parlor.

I would call your attention particularly to the most approved system of heating and ventilation, to the cemented floors, to the lighting, which is either by gas or electricity, and to the absolutely fireproof character of the building.

At this time you may very properly inquire the necessity for this outlay, and for all the costly appliances to which your attention has just been directed. To properly reply will require a very brief exposition of the facts and theories upon which the modern system of antiseptic surgery rests. If a ray of sunlight be permitted to enter a dark room, innumerable particles of so-called "dust" are seen floating in the pencil of light. These moving atoms have been ascertained by the late Professor Tyndall, to be principally living germs, microscopic in size, and believed to be of vegetable origin and character. Many of these germs are harmless, while others cause serious or fatal disease. Therefore, we exclude from wounds all living germs, and so prevent blood poisoning, or septic infection.

Surgery today is so surrounded by precautions that absolute antisepsis can be secured. The various

apparatus and appliances to which your attention has been directed, has been found to be capable of destroying disease-generating germs, and the means taken to attain the object, form collectively in surgery what has been termed the antiseptic treatment of wounds.

Sterilization of dressings or of instruments is the complete destruction of any living microörganisms present and the prevention of the growth of others. Water is usually sterilized by boiling, surgical dressings and instruments by moist or dry heat, and wounds during operation are kept free from germs by the use of germicide or aseptic solutions. The importance and necessity of antisepsis in surgical manipulation has, as you know, only been recognized within a comparatively recent period.

The method, however, of purifying water by the use of heat has been known and practiced by the Chinese for many centuries, both for household purposes and for washing wounds. It is also a curious and interesting fact that the precaution was adopted by Cyrus the Great, twenty-four hundred years ago. Herodotus, the Father of History, in referring to the expedition of Cyrus against the Assyrians, says, "The great King, in his warlike expeditions is provided from home with cattle and all other necessaries for his table. There is also carried with him, water of the river Choaspes, which flows near Susa, for the King drinks of no other; wherever he goes he is attended by a number of four-wheeled carriages drawn by mules, in which the water of the Choaspes, being first boiled, is disposed in vessels of silver."

The consideration of the very complete appointments of this surgical building, leads me to remark that the great development and present position of usefulness of the Pennsylvania Hospital is the result of an evolution, due not entirely to its management, which has ever been prudent, efficient and successful, and as such has elicited universal commendation, but in simple justice to those who have passed away, it may be said that the reputation of the Pennsylvania Hospital is in great measure due to the character of its medical staff.

Let me briefly direct your attention to the remarkable personnel of the members of the Medical Staff who served this hospital in its early days, the men who contributed so much to the reputation of the institution, which they so faithfully served.

I find that between the opening of the hospital, and the close of the century, from 1752 to 1799, inclusive, there were twenty physicians all told who served on the staff and devoted themselves to the care of the insane, the sick and injured. They were all men of exceptionally high character, eminent not only in their own vocation, but having acquirements and accomplishments which made them leaders in the community, and active and influential in all its social affairs. They held positions of great responsibility and honor in public life; they had great literary ability and were classical scholars. Most of them had traveled and had been graduated abroad, and they were always received with marked attention in the medical centers at London, Oxford, Edinburgh, Bonn, Berlin, Vienna, and in Italy. They were preëminently men of affairs, and were constantly being called upon to take an active part in the administration of Government. It will, I think, be a matter of surprise to you, as it was to me, when looking into the lives of those medical men who served before the opening of this century, to find how important were the public services rendered, apart from their arduous daily professional work.

Thomas Bond was the originator of the Hospital. At the outbreak of the Revolutionary War, when past his sixtieth year, he entered the military service of his country, and rendered distinguished service by organizing the Medical Department of the Army. He was the founder of the Humane Society, and its first president, Thomas Graeme, was a Judge of the Supreme Court of the Province of Pennsylvania. He had previously been a member of the Provincial Council and subsequently was Collector of the Port of Philadelphia and also Naval Officer.

John Redman was the first president of the College of Physicians of Philadelphia; he was one of the most active of the eminent men who organized that honorable society and was a member of the Common Council of Philadelphia.

Thomas Cadwalader was a member of the Provincial Council of Pennsylvania, and Medical Director of the Army Hospital.

William Shippen was twice elected by the assembly of Pennsylvania a member of the Continental Congress.

John Morgan, at the time of the war between Great Britain and her Colonies, and France, held a lieutenant's commission in the Army, but he acted chiefly as a field surgeon. During the Revolution he was appointed by Congress, director general and physician-in-chief to the general hospitals of the American Army.

William Shippen Jr. was physician-in-chief to the flying camp, and Congress elected him director general of all military hospitals of the armies of the United States.

Preston Moore was provincial treasurer and trustee of the general loan office.

James Hutchinson, when on his way home from France, was entrusted with dispatches from Franklin, then American minister. His vessel, when off the American coast, was chased by a British ship of war, and being determined to save his dispatches, he left in an open boat and, landing under the fire of the enemy, succeeded in his mission; but the vessel was captured and everything belonging to him, including his valuable medical library, which he had carefully collected in England and France, was lost. He became surgeon-general of Pennsylvania, subsequently senior surgeon to the flying camp; was a member of the committee of safety, and he was frequently consulted by Washington on matters relative to the medical department of the Army.

John Jones served in the colonial army in 1775, against the French. He was the intimate friend of Franklin, and his physician during his last illness, and physician to General Washington. He was president of the Humane Society of Pennsylvania.

Foulke was president of the Executive Council of Pennsylvania.

Caspar Wistar was present at the battle of Germantown, but unable on account of religious principles to carry arms, he sought the wounded and was active among those who were administering relief; while Physick, on account of his valuable services to medical literature and medicine, bears the honorable title of "Father of American surgery."

And what shall I say of the immortal Benjamin Rush, the physician of the port of Philadelphia, fleet surgeon of the Pennsylvania navy, physician general of the military hospitals of the middle department of the American army, treasurer of the United States

Mint, a member of the convention of Pennsylvania for the adoption of the Federal Constitution, a member of the Continental Congress, a signer of the Declaration of Independence, and recognized by all as the American Sydenham?

Thirteen of the twenty medical officers referred to were active in organizing the American Philosophical Society, several were founders of the College of Physicians of Philadelphia, and also of the College of Philadelphia, which afterward became the University of Pennsylvania, while ten became professors in the latter institution; several were honored abroad by election to membership in the Academy of France, the Royal Society of London and other foreign associations. Is it any wonder that the reputation of this hospital advanced so rapidly with such brilliant men in its service?

Volumes could be written to record their merits and embalm their memories; but all may be condensed in the single statement, that with them education never militated against personal goodness, for whether in peace or war, in pestilence or plague, in poverty or wealth, they worked nobly "for the good of their fellow beings and the glory of God."

If Franklin, who was the first secretary and afterward president of the Board of Managers, could today revisit this hospital, which he was so largely instrumental in establishing, he would find that wonderful changes had taken place. To begin with, at the time of his death in 1790, only the east wing was built, for the center and west wing were only commenced and finished about the close of the last and early part of this century. He would now find nothing remaining of the hospital, as he knew it, save the walls of the east wing, while the original plan as afterward completed has, within the last year or so, been subjected to an entire internal remodeling, and other buildings than those originally planned have been erected upon the grounds. He would even find the electric fluid which he successfully conducted along the string of his kite, now successfully employed in the institution whose corner stone he laid, as the customary means of sending the human voice to each portion of the entire range of buildings, and also of illuminating the halls and wards.

In conclusion, I wish to direct attention to the important educational services rendered by this institution. The Pennsylvania Hospital may properly be styled the Mother of American Hospitals from 'the fact that it was the first hospital in this country; but its reputation, which extends through the length and breadth of our land, has been gained not alone because of the tens of thousands of sick and injured charitably cared for, but also from the fact that medical instruction, bedside and clinical, has been a prominent feature from 1752 to this present time, and has been the means of disseminating the best medical thought and practice all over our country. The hospital, during its earlier days, stood forth as the sole representative institution for medical education, offering the only means for systematic instruction in medicine and surgery on this side of the Atlantic Ocean, and this instruction which has continued for nearly a century and a half, was permitted to suffer only a temporary interruption inseparable from the social disturbances accompanying the War of Independence, when the hospital was occupied by Colonial and British troops for their sick and wounded.

The number of students attending the hospital lectures became so great toward the close of the last century that the managers, instead of crowning the center building with a dome, according to the original plan, decided to utilize the space by converting it into a clinical lecture room, and it was used until 1868, when the present, but now abandoned, octagon clinical hall was opened. Thirty years have now elapsed, and the building then considered the best for the purpose which could be planned, has now been found unsuitable, and has been superseded by this structure. What a like term of years in the near future may evolve in hospital construction, it would be presumptuous to even consider; but it really seems as if perfection has been attained and all possible surgical requirements met, by the erection of this magnificent building, which is this afternoon formally presented to the contributors of the hospital.

ORIGINAL ARTICLES.

PAST AND PRESENT OBSTACLES TO THE RADICAL CURE OF HERNIA, WITH DEMONSTRATIONS.

Read at the Third Annual Meeting of the American Academy of Railway Surgeons held at Chicago, Sept. 23, 24 and 25, 1896.

BY PROF. E. WYLLYS ANDREWS, M.D.
SURGEON TO THE WABASH RAILWAY.
CHICAGO.

Foremost among the obstacles which formerly stood in the way of success with radical cure of hernia was sepsis. This was no more true of hernia than of other abdominal work, but in the days now past when all wounds suppurated in the course of healing and when it was rightly thought that opening into the peritoneum was almost a sin, hernia work could not and did not prosper.

Directly dependant upon this obstacle of sepsis (including septic peritonitis) was that of timidity or conservatism, which acted as a blight upon the best surgeons up to about the time of Macewen's method. This tended in two ways to prevent progress: 1, by limiting the extent of the work, thus promoting half measures; 2, by leading many authorities to condemn radical-cure work altogether.

A third obstacle to success by operators of the past has been the extreme multiplicity of operations proposed and the complicated nature of many of them. It is hardly profitable to dwell upon obsolete methods but I have only to remind you of the names of Cooper, Gerdy, Wood, Heaton, Warren, Ball, Nussbaum, Barker, Sewell, Russell, Czerny, Macewen, McBurney, Woelfler, O'Hara, Lucas-Championnière and ask how many of us can even remember the multitude of methods these names stand for. You may turn over old treatises and scarcely come to the end of radical cure methods you will find. Through them all runs the perverted idea of trying to avoid the simple and essential feature of the modern method, namely, laying open the hernial canal. There were subcutaneous sutures with or without invaginating the scrotum. There were operations for "sewing the pillars." There were ingenious transplantations of muscles, fascia, bone plates and sponge grafts to plug up the canal. There were injections of irritants and astringents which as you know had an extensive use at one time and are still exploited. There were numerous forms of lacing and narrowing the canal by sutures passed in from without.

What has become of them all? They have been abandoned the world over because of their danger or inefficiency. The crux of radical-cure work is in the question of recurrence. Hitherto the rise and decadence of hernia cures have been like morning and evening of the same day. Of the scores of ingenious operations in the pre-antiseptic era not one, even the most rational, but was followed by such a train of relapses as soon to bring it into discredit. It will suprise any one, who will take time to look over the standard treatises of only five or ten years ago, to find how distrustful the best surgeons were of all radical-cure work. The conscientious writer could but admit that the numerous relapses and the occasional deaths made the operation hardly advisable. This feeling of distrust was intensified by the fact that many of the methods which failed so signally had been widely heralded in the beginning as infallible.

With the improvements of Macewen and Bassini began a new era. The "open method," the key to success was introduced. Although I think the Bassini method superior to Macewen's, it is fair to give Macewen credit for the central idea, that of dealing directly with the internal abdominal ring. We must not omit to mention that our own Dr. Henry O. Marcy claims to have used essentially the same method some years before either the Scotchman or the Paduan. In inguinal hernia there is but one strategic point, the internal abdominal ring. If this be reconstructed everything else below that point can be ignored. No operator would attempt to obliterate a scrotal sac as a means of preventing return of a scrotal hernia, any more than he would put a bandage around the scrotum instead of a truss above. It is just as irrational to attempt the closure of the external ring or whole inguinal canal while neglecting the internal ring, which is the only practicable point of preventing the return of the hernia.

Now the modern operations, while they are immeasurably superior to the old, also have some obstacles, and as many of you know I have tried to avoid these by a new operation, the imbrication method, which a number of other American surgeons have used with satisfaction.

Among these may be mentioned Dr. L. L. McArthur, Dr. Jas. Burry, Dr. L. Greensfelder and Dr. Bailey of Chicago, some of whom report that they have adopted it after extensively using other methods. Dr. Cole of Montana (five cases) and a number of my professional friends at various places have kindly informed me of their success with it.

Dr. Wm. J. Mayo of Rochester, Minn., has had a large and successful series of herniotomies. He informs me that he uses the imbrication method in large hernias but continues to employ Bassini's operation for those having moderate or small-sized rings. This is in accordance with my own experience, the need of something to supplement Bassini's method having been found very apparent in certain hernias.

I have preferred in my own work to adopt the new method in every case, as it adds no complexity and certainly gives greater security, but I must admit that Bassini's operation in the favorable cases with small rings gives excellent satisfaction also.

To select my method for the bad cases is at once a high compliment and a severe test of merit, too severe, in fact, to be fair, unless cases be classified in making up statistics.

Having stated that even modern operations encountered obstacles, I am prepared to sustain the proposition by reference to nearly two hundred herniotomies which I have made mostly within the past six years by every method now at all recognized.

Kocher's method ("Verlagerung's Methode," I, II and III) in spite of the eminence of its author, seems to me a step backward, in that it is not an open dissection of the canal. The twisted or sharply flexed neck of the sac drawn outside the external oblique can not but form a funnel or dimple on the peritoneum. The suturing of the aponeuroses is inefficient, blind and endangers the cord in any but the most expert hands. Furthermore the retraction of the sac by the forceps is not practicable except in cases which pass through the external ring, and not always in them. I have seen many sacs, large and small, which never could have been so treated. It is not possible to determine beforehand whether this is true or not. We have, therefore, in Kocher's operation a method which may or may not be applicable to any given case and we may be forced to change our plan after beginning the operation.

O'Hara's operation is somewhat like Kocher's, with certain steps left out.

Macewen's operation, with its pad of folded sac, is in my judgment easily overestimated. That the sutured and puckered sac really unites into a solid mass in all cases I know of no way of proving. That serous exudate and adhesions gradually give way we do know to be a fact. Nevertheless I have sometimes used the Macewen sac treatment in connection with Bassini's and my own operations in preference to cutting it off. We should be careful not to place too much reliance upon the treatment of the sac as a step in radical cure. The sac is a result, not a cause of the hernial protrusion, and its removal is an incidental not a decisive factor in its cure. If the aponeurotic walls are left weak a new sac will have no trouble in forming, whatever has been done with the old one.

Macewen's suture closing the whole thickness of the abdominal wall into one mass destroys obliquity of the inguiual canal and the natural valvular arrangement. The same thing is true of Halsted's modification of Bassini's operation. With this last admirable operation fewer obstacles are met and its popularity in America, which seems to have exceeded that in Europe, is, in my judgment, well deserved.

As you know, Bassini's essential improvement consists in a careful suturing of the posterior wall of the inguinal canal, so as to reconstruct the internal abdominal ring. To do this it is necessary to split open the canal, to draw aside the cord temporarily and to get rid of the sac permanently.

The suturing of the posterior wall of the canal is a species of plastic operation. It restores the length and obliquity of the canal and contracts the internal ring so that it will transmit the cord, and only the cord, from within outward. The hernia can not now descend because it is stopped at its very point of exit. If it had been stopped at some other point—say in the canal or at the external ring—it would sooner or later make a way in the looser tissues around the obstruction and reappear to the discredit of surgery. Herein lay the weakness of the older methods. They did not go to the strategic point, the internal ring. The external oblique aponeurosis is sutured by Bassini over the reconstructed canal *edge to edge*. This is entirely changed in my operation as will be seen. [The writer, with Dr. Allport's assistance, here dem-

onstrated upon the cadaver the complete Bassini operation and followed this by performing on the opposite side his own or the imbrication operation.]

Now as my subject is "Obstacles," permit me to refer to some drawbacks even to the success of the Bassini operation just seen. As certainly as you do a number of these operations you will come upon cases where its execution is difficult. These are cases of large internal ring with corresponding defect or absence of the posterior wall of the canal. They are not always large hernias, but sometimes the defect is so great that no muscular nor tendinous tissue appears between the ring and the rectus border. Now the repair of the posterior wall becomes difficult because it involves suturing into apposition structures wide apart. It is well enough to place one or two of the lower stitches into Poupart's ligament and the rectus sheath, but when these tissues must be depended upon too largely to repair the posterior wall the result is very unsatisfactory.

The obvious remedy for such a defect is the use of a flap from some neighboring part to fill this gap.

It seems to have occurred to several operators to attempt this in various ways. Flaps formed of fascia lata and even of a portion of the thigh muscles, such as the tensor vaginæ femoris, have been suggested. Woelfler advocated the use of the anterior sheath of the rectus muscle turned outward and sutured into the ring and posterior wall. The problem is to rebuild this deficient wall with a flap of some analogous tissue, which can be brought into position with ease and certainty without additional dissection or damage to other parts. To this end I use the structure nearest at hand, the *upper* segment of the divided external oblique, sliding it gently from its former position in front of the cord to a corresponding one behind it. Observe that its fibers are not changed in direction or even separated from the muscle behind. It is simply incorporated *with* the material Bassini uses in the posterior flap. I can not insist too strongly on the importance of using all the conjoined tendon and transversalis fascia present as part of this flap, since some operators have seemed to think it only necessary to include the layer of aponeurosis of the external oblique. This may be a kind of "imbrication" but it is not my method. Here I desire to call attention to the smooth firm appearance which the canal presents with this new structure incorporated. Of its strength and its unimpaired nutrition there can be no question. The question first suggested on seeing this step in the technique, is whether perhaps we have put the parts under too great tension (see Coley & Bull, Sajous' Annual, 1896, Vol. III). The fact is that there is never great tension here as shown by the ease with which these deep sutures are drawn. The overlapping is only 2 or 3 cm. Is it not true that in a dilated canal the anterior wall is stretched, and that, by thus disposing of the upper flap, we simply make the tension equal in front and behind the cord? Consider, also, how much firmer the union must be between overlapping surfaces than between those united edge to edge as by Bassini.

The *lower* flap of external oblique aponeurosis now remains as a covering to the cord, and is gently laid and sutured overlapping the upper with the cord between them. It is perfectly obvious to you that we now have the same anterior wall as before to the inguinal canal, namely, this aponeurosis. The external ring is also restored as before or perhaps a little smaller. Into the posterior wall, however, is introduced a new and strong layer. Three layers now occupy the place of two and are so interwoven that they support each other and the tension is equally shared by the two lines of suture. I attach some importance to this point as I have found that in the Bassini method the deep row bears all the stress, and the edge to edge union of the aponeurosis over the cord is not always perfect.

I can not refrain from stating that I have found the principle of imbrication applicable to other purposes such as uniting abdominal wounds after ordinary celiotomy near the linea alba and linea semilunaris; but in this part of the subject I can not hope to interest you at the present time.

DISCUSSION.

Dr. COLE—I had the pleasure about a year ago of witnessing a demonstration of this operation by Dr. Andrews upon a living subject, and since then have had an opportunity to make the operation in five cases, and while that comparatively does not amount to very much, yet I wish to say the operation is to my mind an ingenious improvement upon the Bassini operation and one that will prove satisfactory. Before seeing Dr. Andrews I was prejudiced in favor of the Kocher operation; in suitable cases I still think it is an admirable operation, but I do not think it is so well suited to the average case presented as the practical modification and improvement by Dr. Andrews. You all know what the feature of the Kocher operation is, putting the sac through the upper torsion and making a new operation. I think I have done the operation in three or four cases.

Dr. MAYO—I wish to thank Dr. Andrews for his very clear demonstration of his method of operating for the radical cure of inguinal hernia. He is to be especially congratulated that he has wasted so little time on the peritoneal sac. In the past the treatment of the sac has been altogether too much insisted upon. The peritoneum and skin are the coverings of a hernia and neither has any particular retentive strength. Dr. Andrews wisely shows this in a negative way by dealing almost entirely with the muscles and aponeurosis. The proper restoration of these structures settles the question of radical cure. The sac may be cut off, or as done by Macewen, puckered up about the internal ring; it matters little so long as it is not allowed to evert between the important muscular and aponeurotic structures and prevent their firm union. Like the sac, the skin has no retentive power and is important mainly from the fact that it can only by great difficulty be rendered reliably sterile, and as suppuration is one of the most common causes of failure by introducing relatively weak scar tissue in the place of structural union of tissues, the greatest care in dealing aseptically with the skin is absolutely necessary. Dr. Andrews' method of placing the sutures is a good idea, for in case suppuration should take place the deeper parts of the wound might escape. Greig Smith long ago pointed out that scar tissue is essentially the same between different tissues and always unreliable and that it should be covered by normal structures if possible. Bassini's operation does this most admirably, the line of sutures of Poupart's ligament being protected by the over-lying flap of the external, and the sutures in the external oblique being protected underneath by the deeper tissues pulled under by the previous line of sutures. But when the space of the internal ring is large the traction necessary to bring the conjoined tendon to Poupart's ligament at the lower angle is great and the union endangered by cutting of the sutures. It is to this class of large hernias it seems to me Dr. Andrews' operation can be beautifully applied; it readily protects this weak point by the strong external oblique fascia which is drawn under in his method. Hal-

sted's operation is one which depends on scar tissue union in one line from within out and succeeds only by leaving in permanent silver wire sutures which act as an internal truss. I have done the Halsted operation a number of times with good success. The Kocher operation is defective in drawing the relatively weak sac between the muscles. After an operative experience of 125 cases of radical cure I had come to the conclusion that the Bassini was the most rational operation and I now practice it almost exclusively. Dr. Andrews' modification of the Bassini in the large hernias, where the defect in the abdominal wall is considerable, will be of great value.

A MEMBER—I am very glad indeed to have had this very clear description; it seems to me to be one of the best operations I have ever seen. I never have had much experience—in all probably thirty cases—but on the majority I did the Halsted operation, except in introducing the stitches I devised a little scheme of my own. I used altogether the heavy common gut but instead of inserting the sutures in the same manner as Halsted does on the side, I insert the suture on the top about a third of an inch and draw it out again on top, so instead of the edges coming in contact, the edges were turned into the canal; so you have an edge turned down and that seems to me to abate the tendency to a new hernia forming in the new ring, as in the Halsted operation, because in this method of inserting stitches you have instead no raw bulging edges. This edge where it is carried on the upper ring projects downward, and that downward projection interferes with the proper union and a new hernia is formed. My greatest difficulty is to draw it tight enough to be safe and at the same time to prevent strangulation of the cord. My cases have rarely recurred; the oldest, I think, is a little over six years old; most of them have been in the hospital and I have seen very little of them afterward; some of them I have traced two years, but I have heard of but one or two out of twenty of that method that have lapsed. One case I have had under observation continuously; I was an attendant in the hospital at that time; he had a very large hernia which had troubled him for twenty or thirty years. In this case my upper suture above the cord gave way, causing a protrusion; as soon as I discovered that I opened it and trimmed the edges and inserted a new suture, and that is six months ago and it is very good yet.

Dr. ANDREWS—Of course I am gratified to hear of Dr. Cole's favorable report of cases done by my method. I had the pleasure of meeting Drs. Cole and Galbraith a year ago and showing them my operation, but to hear that this method has been introduced as far as Montana is a surprise. The Kocher operation, like others which depend upon the sac, only seems to me a step backward. Sac adhesions are untrustworthy to retain a hernia. Farther, can any diagnostician tell us whether or not he has congenital hernia before operating? How can Kocher's method be used without a separable sac?

As to the sac, it does not make any vital difference what you do with it. You know the operation of O'Hara consists of cutting off the neck of the sac and retracting the stump, without, however, the deep sutures of Kocher. He leaves the scrotal part of the sac in the scrotum and no harm results in most cases. In a few cases I have dealt with the sac by pushing it back entire. This was when one was found having no distinct neck. Of course a majority of cases have so well-defined a sac that it is easy to strip it gently from its bed and ligate it off. I was particularly pleased with Dr. Mayo's remarks on the sac question. We must not put dependence upon peritoneal tissue for permanent repair, but upon careful reconstruction of the aponeurotic walls. I stand firmly on this principle as embodied in Bassini's and my own method, and distrust the type of operations depending upon sac closure or adhesions. In case of a very large cord or any veins, I do not advocate removing any of them; I always leave two fair-sized veins on the cord and I think one needs to take special pains to avoid the artery; it is not difficult as it is large, and if you get your artery mixed in with the sutures I think it would most certainly cause gangrene of the testicle.

HEREDITARY ATAXIA—FRIEDREICH'S DISEASE.

A clinical lecture delivered before the Woman's Medical School of Northwestern University.

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[Reported by Cunera R. Scheffer, M.D., Clinical Assistant.]

We have before us today, as patients, three members of the same family. In the antecedent history, we can neither see any positive evidence nor gain any information as to venereal disease or alcoholism, two of the most prolific causes of lesions in the nervous system; but we do find a striking record of pulmonary tuberculosis. On the maternal side, two aunts and two uncles, as well as the grandmother, died of this disease. The mother, a French-Canadian, is living and in good health. She is small in stature. On the paternal side there is a history of health and longevity, but we are told that the children were "scrofulous." The father, of the same nationality as his wife, died somewhat over a year ago, of organic heart trouble. So far as our uncertain knowledge can testify, the cousins have had no diseases other than those common to childhood.

In the immediate family there were eleven children, four of whom are not living. Three of these died of acute illnesses, while the fourth was a hydrocephalic baby. There are two grown sons apparently healthy. Three young daughters are in a poor physical condition, having enlargement of the post-cervical glands, and are markedly undersized. We will now turn to the patients.

Case 1.—This boy is 12 years of age, and American born. For the last four years he has had trouble in walking. It began with a slight stagger and has been steadily, and during the past year rapidly, increasing. Notice his style of locomotion. The toes are brought to the ground first, and the feet are widely separated. This is suggestive of spastic paraplegia. He can not walk at all with his eyes closed. There is incoördination of the upper extremities also. There is no atrophy. The deep reflexes are absent, but the plantar, a superficial one, is still intact. This difference is due to the separate paths taken by the sensory fibers upon their entrance into the spinal cord. The deep reflexes enter the posterior columns directly, while the superficial pass into the cornua through Lissauer's zone, and it is not until the posterior horn is involved that the superficial reflexes are lost. Rectal, vesical and sensory symptoms are entirely lacking. Notice the back; scoliosis is a common accompaniment of this disease. There is a double curvature similar in outline to the letter S.

Case 2.—This boy is 21 years old, and was born in Canada. His ataxia has been progressive from the age of 14. His gait is like his brother's, but with a much more widened base, and you see he can not walk at all without the aid of a chair, which he pushes in front of him. There is the same incoördination of the upper extremities, and something that was not found in the first case, a difficulty in speech, shown by his thick, halting articulation. Reflex irritation and the spinal curvature are the same, and in addition to the latter, we have another common deformity, the

turning up of the great toe, which was noticeable a few moments ago. It is not a constant symptom. Frequent pains are present in this case, but notice that they are of late development.

Ophthalmic examination reveals no ciliary or pupillary diminution of reflex, but the field of vision is abnormally contracted in every direction. Nystagmus is not demonstrable today.

Analysis of urine gives negative results. Analysis of blood shows 82 per cent. of hemoglobin, and the excellent record of 4,870,000 red corpuscles.

Case 3.—This young woman is 24 years of age and Canadian by birth. Variola was the starting point of her disease nineteen years ago. The ataxia has progressed until the lower limbs have reached the paralytic stage, and the upper ones an advanced incoördination, the speech becoming more and more faltering, until it is at times unintelligible. Atrophy is pronounced, and the superficial, as well as the deep, reflexes are abolished. There is the same double spinal curvature here, and the hyperextension of the great toe. The last few years have developed lancinating pains in the limbs. The mind is much impaired. Ophthalmic examination, rendered uncertain by corneal opacity and enfeebled mental condition, shows no abnormality. Analysis of urine reveals nothing further than a high specific gravity with an abundance of urates. The analysis of the blood gives us 58 per cent. of hemoglobin, and the extremely poor record of 1,330,000 red corpuscles.

The stigmata of degeneracy is very marked in all three cases, as observed in the tables below.

Diagnosis: These are cases of Friedreich's disease or hereditary ataxia.

Symptoms: 1, the ataxia, beginning in the lower limbs and extending to arms and tongue; 2, the spinal curvature; 3, gradual development of paraplegia; 4, loss of knee jerk; 5, that the symptoms began in childhood; 6, the absence of Argyll-Robertson pupil, of anesthesia, of vesical symptoms, of severe pains, of intention tremor, of spasticity of the gait. These several symptoms readily differentiate these cases from posterior spinal sclerosis and multiple sclerosis.

As to cerebellar heredo-ataxia, I believe the form of the disease before you is identical with it in pathologic process, the one beginning in the cerebellum and giving eye symptoms and exaggerated reflexes in the start, and traveling downward; the other commencing in the lower region of the cord with loss of reflex and no sensory or eye manifestations, and passing upward, finally involving the cerebellum.

Pathology: The seat of the morbid changes is at first the posterior and lateral columns of the cord, later the anterior cornua and finally the nerve structure. In some cases there is developmental failure; in others, an inflammation resulting in a steady encroachment of the connective tissue on the nerve elements.

Prognosis and treatment: The prognosis of the disease is clearly demonstrated before you. We have no cure. Our province lies in protecting the other children as soon as one case is diagnosed. The family surroundings should be the best hygienically, and every care taken for the prevention of infectious disease, which hastens the development of the ataxia. A nutritious diet is necessary, and medical treatment when indicated by the general physical condition. For the disorder itself nerve stretching might be palliative. Alterative treatment coupled with the best of hygiene, will give as good results as we are able to bring about by the science of today.

Case 1.	Case 2.	Case 3.
Height, 4 feet 3½ inches. . . .	5 feet 2 inches . . .	. . . . .
Occiput, full	Full.	Well developed.
Bregma, sunken.	Flattened.	Flattened.
Forehead, full and narrow . .	Narrow and low . .	Narrow and low.
Hair, dark	Dark	Dark.
Hair on face——	Scanty	Considerable.
Hair on body——	Considerable	. . . . .
Face, sunken	Sunken.	Normal. [oped.
Zygomata, normal.	Left more promin't.	Right more devel-
Ears, *a*, long and narrow; *b*, Darwinian tubercle on left	Jug-handle shape; left higher than right.	Tubercle on right.
Nose, deflects to left.	Deflects to right . .	Normal.
Thyroid gland, enlarged. . .	Almost a goitre. . .	Goitre.
Eyes, right higher than left.	Left higher than R.	Sunken.
Jaws, lower arrested, width upper 2⅛ in.; high vault ½ in., anterior post. 1½ in.	L. arrested, w. u. 2⅛ in., h. v. ½ in., a. p. 1½ in.	W. u. 1¾ in.; h. v. ½ in.; a. p. 1½ in.
Alveolar process, hypertrophy.	. . . . .	Hypertrophy.
Teeth, six permanent lower, and upper abrasion.	No abrasion	Abrasion, upper lateral missing.
Body, arrest of chest walls, post.-cerv. and ing'l glands enlarged, double spinal curvature.	Abnormal muscular development of right shoulder; double spinal curvature.	Double spinal curvature; emaciat'n
Breasts, ——	Unusually full. . . .	Right not so fully developed as left.
Tibia, flattened.	Flattened.	Flattened.

Dr. Mary Hollister and Dr. Eugene S. Talbot furnished the ophthalmic and anthropologic data respectively.

INFLUENCE OF DIET, IN A CASE OF DIABETES MELLITUS, UPON THE ABNORMAL CONSTITUENTS OF URINE AND UPON THE GENERAL CONDITION OF THE PATIENT.

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Clinical History.—The patient was a married man, 33 years of age, and of excellent previous health. There was no history of any neurosis, but he stated that his mother had been a great sufferer with neuralgia and had periods of great mental depression. His life had chiefly been spent in open-air work, and on the first of March he had obtained a position as policeman, his weight at that time being 148 pounds. At about that time he first noticed a polyuria and white spots, which evaporating drops of urine left on his shoes. The diagnosis of his condition was not made, however, until the following August, when loss of weight and increasing weakness compelled him to resign his position. He came, on the last day of September, under the care of the writer. At that time his weight was 132 pounds, the general condition was fair, except for emaciation and weakness, with occasional cramps in the legs and a dull pain in the lumbar region. Up to this time his diet had consisted almost entirely of carbohydrates, especially the sweeter pastries, cake, etc., there being an especial craving for such foods. He had never been a spirit drinker. Physical examination showed sound heart and lungs, liver slightly decreased in size, spleen small. There was marked tympanites. On this date the twenty-four hours urine amounted to 8.360 c.c. There was a specific gravity of 1,027 and it was neutral or faintly acid to litmus. No odor of acetone could be detected either in the breath or urine, although a small amount was demonstrated to be present in the latter by Gunning's iodoform test. No reaction with ferric chlorid could at this time be obtained. Sugar was present to the amount of 11 per cent. making a daily excretion of 920 gm. The urea excreted amounted to 67 gm.

October 3, patient placed on rigid proteid diet for forty-eight hours. Thirst is much increased and there is a severe frontal headache with malaise. The urine, on testing with ferric chlorid, gives a strong, ruby-red reaction. It is strongly acid to litmus. Amount 9,370 c.c., specific gravity 1,030, sugar 4.25 per cent. The iodoform reaction had increased in volume fifteen to twenty times.

October 4, appetite greatly increased; otherwise condition unchanged; sugar 1.25 per cent. Ferric chlorid and iodoform reactions greatly increased.

October 8, general condition unchanged; weight 125 lbs.; sugar 3 per cent.; iodoform and ferric chlorid reactions still increasing.

October 12, severe frontal headache for two days; much vertigo and patient feels weaker; sugar 2.25 per cent.

October 16, headaches continue with increasing severity; spasmodic twitching of facial muscles; weight 122 lbs.; sugar 3.25 per cent.

October 22, general condition the same; characteristic urine reactions increased; sugar 5 per cent.

October 26, patient nervous and depressed; frontal headaches continuous. Patient fainted but recovered in a few minutes. Sleep very poor and bowels obstinately constipated; urine shows 0.1 per cent. of albumin; sugar 2.25 per cent.; ferric chlorid reaction shows a maximum intensity; weight 118 lbs.

November 6, condition gradually becoming worse; appetite enormous and considerable dyspepsia. Patient is very weak; sleep poor; memory failing and mind wanders at times, especially at night; urine reactions the same; sugar 5 per cent.

November 12, persistent headache with facial neuralgia; vertigo frequent and insomnia great; sugar 6 per cent.

December 6, mind wanders continually and patient is subject to great depression; much vertigo, nervous irritability and insomnia.

December 7, pulse 108, weak and intermittent; pains all over body. Patient is slightly delirious a considerable part of the time and very despondent and melancholic; urine reaction with ferric chlorid very large.

December 9, cerebral symptoms somewhat improved and sleep obtained by use of hypnotics; bowels badly constipated and much dyspepsia present; sugar 6.25 per cent.

December 14, condition is unchanged; appetite enormous; urine reactions marked; sugar 5.25 per cent.

December 26, has visited in the country for a fortnight; felt much improved at first, but the last few days has had severe headache and vertigo; sugar 6.25 per cent.

January 15, great mental depression with muscular weakness; tormenting frontal headache; urine passed in twenty-four hours 7,230 c.c.; sugar 5.25 per cent.; ferric chlorid and iodoform reactions very large.

January 20, patient is depressed and delirious at night; has bad dreams and sleep is poor. Bromids are given in small doses with relief; weight 112 lbs.; urine in twenty-four hours 7,880 c.c.; sugar 5.25 per cent.

January 28, general condition unchanged, no improvement; sugar 6.25 per cent. Ferric chlorid and iodoform tests very large.

February 3, condition is unchanged; urine passed in twenty-four hours 9,680 c.c.; sugar 7.25 per cent.

February 8, condition is worse; headache is so severe as to induce frequent fits of crying; sleep is poor and vertigo almost constant; amount of urine 10,900 c.c.; sugar 7 per cent.

February 16, patient threatened with collapse. Vomiting; is unable to walk up stairs. Pulse 128, weak and intermittent, with shallow and hurried respirations. For weeks appetite and thirst could not be satisfied. Weight 108 lbs.; sugar 7 per cent.

February 20, condition somewhat improved as regards headache and cerebral symptoms. Urine 9,150 c.c.; sugar 6.5 per cent.; urine reactions strong.

February 22, the condition of the patient steadily becoming worse, it was thought advisable to stop the treatment by proteid diet and allow carbohydrates with the addition of eggs and milk. The patient was encouraged to use alcohol freely, particularly in the form of eggnog, and was urged to restrict the quantities of drink taken as far as possible.

February 26, patient much improved; cerebral symptoms almost disappeared; appetite much less but thirst increased. The patient drank thirteen quarts of milk in the twenty-four hours. The ferric chlorid reaction in the urine much diminished.

February 29, great subjective improvement. Patient feels much better and stronger.

March 3, feels perfectly well except for muscular weakness. Twenty-four hours urine 9,469 c.c.; sugar 7.75; ferric chlorid reaction greatly decreased in intensity.

March 8, strength returning; no cerebral symptoms. Weight 113 lbs., showing a gain of five pounds on this treatment. Ferric chlorid reaction only moderate; sugar reaches its maximum on a carbohydratic diet 9.5 per cent.

March 14, patient rides or walks out every day for short distances; had bad dreams but no other cerebral symptoms. Urine 9,820 c.c.; sugar 7.5 per cent.

March 18, still improving; sugar 7 per cent.

March 22, one month after employing a mixed diet the patient finds himself subjectively better in every way. He has gained in weight and muscular power and the previously marked cerebral symptoms have almost entirely disappeared. Headaches and vertigo, which were formerly almost constant under a proteid diet, are now only occasional and not as severe as formerly.

March 28, patient feels well except for muscular weakness.

March 29, no headache. Patient sleeps well. Ferric chlorid reaction still persists, but is only a small fraction of its former intensity while under a proteid regimen.

April 1, condition unchanged; sugar 5.75 per cent.

April 5, patient still improving, although is still very weak. Sleeps well and has little cerebral trouble; sugar 6.5 per cent.

April 9, has been working out of doors and contracted considerable bronchitis. Otherwise in good condition, although has had two severe headaches which were, however, of brief duration. For experimental purposes the patient was put temporarily on a purely meat diet; sugar 7 per cent.

April 12, patient's cough worse. Headache troubled him yesterday. Urine passed after two meat meals gives an intense ferric chlorid reaction and contains 12.43 grams of ammonia. If the ammonia was excreted for the full twenty-four hours in the same ratio the daily excretion would amount to about fifty times that of health.

April 14, cough much worse with severe pain under left scapula; pulse 120 and weak; respirations short and hurried, 51 to the minute. Physical examination shows dulness on percussion under left scapula, with fine crepitant râles. Temperature 104.4. Diagnosis: Pneumonia. A "pneumonia jacket" was ordered and small doses of morphin with ammonium carbonate administered.

April 15, patient suffering great pain, to quiet which morphin in sixth-grain doses was given by mouth. Physical examination showed extension of the pneumonic process. Pulse 106; 102.6. Eggnog given every two hours.

April 16, has been suffering extremely all night as he refused to take the morphin. Temperature 104.4 and pulse 140. At the desire of the family small doses of morphin were given subcutaneously as were also stimulants. At this time the patient endeavored to urinate but was unable to doso. Shortly afterward he became quiet under the morphin, the action of the heart steadily growing weaker in spite of careful stimulation. Death followed five hours later. About one hour before death he broke into profuse perspiration, the first one in a year. Unfortunately a postmortem examination could not be made.

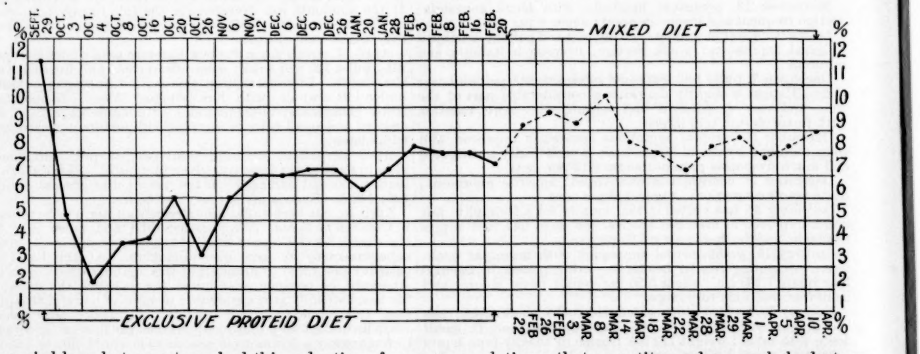
Influence of diet.—That the ingestion of various food stuffs exerted a marked influence upon the excretion of certain abnormal constituents of the urine was very noticeable. Although, according to the accepted treatment of diabetes, there should have been a great diminution or absence of sugar from the urine while under a proteid diet, in this instance such a diet has had by no means the effect which was to have been expected. Before proceeding to a discussion of the influence of diet upon the several constituents of the urine individually, it may be well to make a general statement to the effect that an exclusive proteid (meat) diet has in this case been observed to directly produce and increase the quantity of certain of these bodies, that this state of things is accompanied by, and is probably in part the result of, an excessive tissue waste and that these abnormal bodies so produced are probably important factors in the production of cerebral symptoms which may so increase as to ultimate in fatal coma. It has also been observed that a return to a mixed diet from a proteid regimen greatly increases the amount of certain of these bodies, this increase being accompanied by marked physical and mental improvement. As has already been stated, this patient came under treatment feeling perfectly

well except for muscular weakness. His weight at that time was 132 pounds. Subsisting almost entirely upon carbohydrates, there was a sugar output of about 980 grams in the twenty-four hours. A rigid exclusion of all carbohydrates was now ordered, the patient being allowed the usual diabetic bill of fare but, from choice, subsisting almost wholly upon meats and animal broths. On October 3 the sugar excretion had fallen to 4.25 per cent., the following day, five days after instituting treatment, bringing the sugar down to 1.25 per cent., the smallest amount to which it ever fell while under the care of the writer. On October 8, there was a rise to 3 per cent. and on October 22, after considerable variation, it reached 5 per cent. During the next three weeks there was a fluctuation of several per cent. on both sides, and on November 12 it had risen to 6 per cent. From that date until February 20, a period of fifteen weeks, there was at no time a variation of more than 1 per cent. from this point. The proteid diet, then, during the five months of its continuance, had succeeded in permanently diminishing the sugar excretion not quite one half. The quantity of urine eliminated daily continued at about the same point—9 liters. Accompanied by what symptoms had this reduction of some 5 per cent. of sugar been accomplished? On February 20 the patient weighed 108 pounds, showing an actual loss of body weight of 24 pounds. Progressive weakness had confined him to his room for the past three months and severe dyspepsia had resulted from excessive ingestion of proteids. Severe cerebral and nervous symptoms had been almost constant for three months. He was daily subject to severe headaches, vertigo and neuralgia; memory had failed and the mind frequently wandered, these symptoms deepening in several instances to slight delirium. There had been one fainting fit, and sleep had been obtained with difficulty and was disturbed by bad dreams and nightmare.

It may be objected that all these physical and mental symptoms were due to the natural progress and increasing severity of the disease itself and that there was necessarily no relationship between them and the diet administered.

On February 22, however, the patient being apparently on the verge of coma and collapse, the treatment by proteid diet was abruptly discontinued and all meat interdicted, the patient being allowed moderate amounts of carbohydrates in easy assimilable forms, together with eggs and milk. The use of gruel, rice, oatmeal, bread, etc., was encouraged. Following this treatment, on February 22, the sugar excretion amounted to 6.5 per cent. February 28, it had risen to 9.75 per cent. March 3, there was a slight fall to 8.75 per cent., while on March 8, two weeks after giving a mixed diet, it reached 9.5 per cent., its maximum under this treatment. March 14, it stood at 8.5 per cent., and on March 22, exactly one month after instituting a mixed diet, the sugar secretion had again reached the 6 per cent. mark, which had so long been the average under proteid treatment. There was no great subsequent variation from this point.

But it may be objected that nothing had been gained by a mixed diet, since the sugar excretion remained at about the same proportion. It must be reiterated that the quantity of sugar excreted is in itself of no importance and that a patient with a large sugar secretion is in no more immediate danger of death than one secreting a fraction of that amount. In fact, from a study of this case, the writer is convinced that a patient secreting only a few grams of sugar on a strictly proteid (meat) diet is in a far more precarious condition than one who excretes



several times that quantity under a carbohydrate or mixed diet. Following the return to a mixed diet this patient showed rapid improvement in every way. He had made an actual gain in weight of twelve pounds, while his strength had so returned that, instead of being bedridden, he was able within a few days to take short walks and drives. The most noticeable and complete change, however, was the almost immediate disappearance of the cerebral symptoms, not relatively but absolutely. There was hardly a trace of cerebral trouble for several weeks, while under a proteid diet headaches and vertigo had been of almost constant occurrence. Sleep was readily obtained and was refreshing, while all traces of depression and melancholia had disappeared. Furthermore, a return to proteid diet was followed by a return of headaches and vertigo.

The following curve shows the sugar excretion between September 29 and April 10, and is based upon the full twenty-four hours urine in each case. It will be readily seen that, in this case at least, a purely proteid diet was not followed by a great permanent increase in the sugar output nor did a return to a mixed diet permanently increase its excretion. In this instance, therefore, the treatment by an exclusive

proteid diet in the hope of cutting off the sugar supply and so preventing its appearance in the urine has entirely failed in its object while at the same time it has apparently induced and aggravated those mental and physical conditions which are premonitory of coma. On the other haad, these symptoms have abated at once on a return to a mixed diet.

During work on the sugar excretion it was noticed that the percentages of sugar varied greatly at different times in the twenty-four hours. Urine passed in the early morning contained only a relatively small quantity of sugar, but this steadily increased until the maximum was passed at about the middle of the afternoon. It then gradually diminished and the urine passed in the late evening only contained a small amount. Such a variation in the excretion of sugar will show the necessity of basing all quantitative estimations upon the entire twenty-four hours' excretion. The ferric chlorid reaction, showing the presence of aceto-acetic acid, could not be obtained from this case previous to beginning treatment, but it appeared with considerable intensity within forty-eight hours after the institution of a proteid diet. It was also noticed that this reaction obtained its maximum two or three hours after a meat meal and was least in the urine passed just previous to such ingestion. These latter facts were repeatedly noted. This is evidence in favor of the theory that diacetic acid is produced directly in the decomposition of proteid—more especially of the albumin ingested, but also to a certain extent of the body tissue itself—and is not, as as has been advanced, a result of the oxidation of sugar.

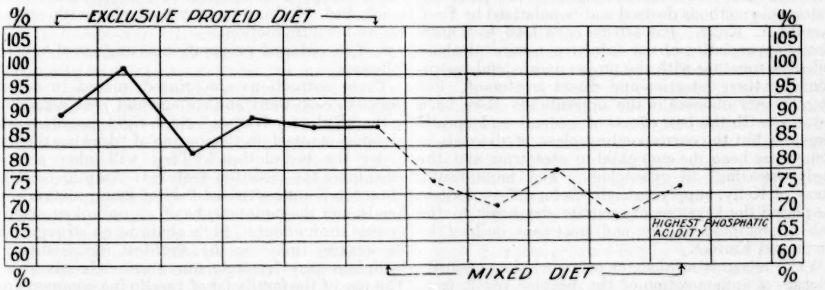
With regard to oxybutyric acid, the amount of this body present in the urine of this case was at no time large and probably never exceeded 3 to 5 grams in the twenty-four hours. There was, however, a marked increase in the amount of this acid while under a mixed diet. This agrees with Hugounenq (*Am. Jour. Med. Sci.*, October, 1887), who seems to be about the only one who has observed the influence of foods on diabetic urine, and who believes that a meat diet is a prime factor in the production of this body.

For the purpose of supplementing the results given by the ferric chlorid reaction determinations of the acidity of the same specimens of urine were also made. The results so obtained approximated very closely with the variations of the ferric chlorid reaction, showing that aceto-acetic acid was the chief factor in the production of the high urine acidity found in this case. Determinations of the urine acidity in urines passed under proteid and mixed diets showed a considerable increase while under the latter treatment. This fact, in connection with the fact that the urine acidity always rose after the ingestion of large amounts of meat by this patient would seem to show that the amount of diacetic acid excreted depended entirely upon the amount of proteid which the system was obliged to decompose. If diabetic coma is due to an acid toxemia, as is now generally believed, a too rigid meat diet must without doubt be a main factor in its production.

The following curve shows the urine acidity so found under both mixed and proteid diet. Under a mixed diet there is a decrease of 14.69 per cent. of acidity, although the acidity under both conditions of diet was in excess of what it was possible to attribute to acid phosphates.

With regard to the excretion of ammonia under mixed and proteid diet it was found by a large number of experiments that while under a meat diet the the ammonia excretion was about twelve times that of health, but that the change to a mixed diet was at once followed by a decrease of about one-third in the ammonia excretion.

In this case, then, the restriction to an exclusive proteid diet resulted in a diminution of the sugar excretion about one-half. This was accomplished at the expense of the general health and comfort of the patient, and was accompanied by the appearance and progressive increase of certain abnormal constituents of the urine which were of far more clinical significance than was sugar itself. A return to a mixed diet, in which moderate amounts of carbohydrates were allowed, resulted in the immediate physical and mental improvement of the patient and decrease of the abnormal bodies in the urine. Furthermore, this mixed diet did not permanently raise the sugar elimination beyond what it had been for some months under proteid diet.



CYSTITIS IN WOMEN.

Read at the Nashville Academy of Medicine, Dec. 17, 1896.

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There is no more prevalent, distressing or intractable malady in the whole range of gynecic affections than cystitis. It is a subject that rarely comes up for discussion in medical societies. It seems that our appreciation of the difficulties and limitations in its treatment, combine to render our interest in the disease lukewarm. Your essayist feels like apologizing

for its introduction before this presence, especially as he has nothing new to offer; yet the extreme distress attending it so far exceeds the majority of conditions that enlist our interested therapeutic and surgical endeavors, that a review of some of the obstacles to its cure and an invoice of our resources should be of the utmost moment.

A perusal of the classical literature on the subject is a most ponderous undertaking, and the detailed description of trivially remote and ridiculous idiopathic causes begetting a host of vaunted remedies is disquieting and mystifying.

Sepsis, "the leaven which leaveneth the whole lump," is the key to both etiology and treatment. The failure to appreciate the causative factorage of pus-producing germs; the rational methods for their extermination and the correction of their depredations, is the entire solution to the misinterpreted etiology and unsatisfactory treatment in the hands of our predecessors. Hitherto the inflammatory and other ailments of the female urinary system, has been illy understood, and lagged in the wonderful progress made in collateral branches of our art, particularly in the revised pathologic conception and treatment of the associated organs.

The most incisive changes in the diagnostic phase of these disorders have been wrought by the perfected cystoscopic methods devised and popularized by Prof. Howard A. Kelly. His labors have lead to a more correct appreciation of the infective nature of these maladies, together with the proper means and instruments for their detection and direct treatment. For long, urinary diseases in the opposite sex have been endowed with the best efforts of general and special surgeons, but the corresponding class of diseases in women has been the step-child to obstetrics and the "ugly duckling" in gynecology. The monumental labors of Kelly, supplying methods for differentiation, has placed the keystone of accurate diagnosis to the arch of symptomatology and treatment builded by Skene and Emmet.

While recognizing that the overwhelming majority of cases of inflammation of the bladder result from pyogenic microörganisms introduced from without, the instrumentality of such causes as exposure to cold, retention and decomposition of urine, calculi, foreign bodies, entozoa, neoplasms, tuberculosis, mechanical injuries, croupous and diphtheritic inflammations, and the secondary infection from rupture of an adjacent pus collection, is unquestioned. Yet unclean catheterization must stand the impeached sponsor for the majority of cases of this affection. The extension of septic urethritis, particularly gonorrheal, is another source of infection. It is to the prevention of these two large classes of cases that I desire to refer especially. Unclean, rather than unnecessary catheterism, should be the subject of censure. I believe that more cases in obstetric practice should be catheterized and fewer cases in gynecologic surgery. The overdistended bladder in parturient women, unsuspected by the patient and unnoticed by the nurse, should always be the subject of closest scrutiny from the accoucher. Do not wait for dribbling, but insist upon careful measurement and computation of the total daily amount of urine. Urination should be encouraged, even to allowing the woman to sit up on the bed-pan in normal cases after the first few hours. In difficult cases, and where the patient is unable to pass her water, systematic clean withdrawal should be practiced.

In the post-operative care of gynecologic cases, I am especially anxious to encourage voluntary urination, by allowing hot water to trickle over the vulva, by vaginal irrigation, where there is no outside operation or gauze within, and this failing, by hot enema (unless there is sphincter repair). These methods faithfully employed are usually successful. I can commend enemata as the most effective of all methods to encourage micturition. These means failing, the method of catheterization is all important. I append the rules for preparing catheter, and precautions necessary in passing it, in use in the Woman's Hospital.

1. Catheter to be boiled in boric acid solution 4 per cent. for ten minutes.

2. Catheter to be brought to bedside in the vessel of solution in which it has been boiled.

3. Nurse to place patient in proper position for introduction of catheter.

4. Prepare the parts by washing with bichlorid solution 1-3000.

5. Nurse to scrub hands with brush, soap and water for three minutes.

6. Scrub nails and hand with brush and bichlorid 1-1000.

7. Nurse not to touch anything after cleansing hands except catheter, great care being taken not to touch bed, clothing or anything else with catheter before its introduction.

8. This order of preparation as suggested must be followed.

These instructions are printed, placed in suitable places in each ward and cottage and also reproduced in the "Rules for Nurses." Such rigid measures are in pleasing contrast to the routine of "drawing the water under the bed-clothes." They will also serve to accentuate the essential features: Aseptic condition of catheter, antiseptisized field of manipulation, clean hands, and the maintenance of an unbroken chain of asepsis throughout. As "a chain is no stronger than its weakest link," so the slightest inconsistency in technique may frustrate our most elaborate details. The use of the family jar of vaselin is a common error. In reality no lubricant is needful, but if it were, its sterilization should be a matter of course. It may be added, that glass or metal catheters are preferable to rubber, for obvious reasons.

The prevention of extension in gonorrheal urethritis should enter largely into our active combative efforts in this disease. With the onset of *ardor urinæ* the urethra should be irrigated, after the conclusion of the daily disinfection of the vagina, with a 1-20,000 solution of bi-chlorid. The instillation of a few drops of 4 per cent. cocain solution should precede the irrigation, which should be confined to the urethra by pressing its proximal end well up under the symphysis so that none of the fluid enter the bladder.

The habit of long retention of urine by women, through motives of modesty, or inability to evacuate the bladder at regular or suitable intervals, is mentioned as a cause. Over-distention causing a cutting off of the blood supply to the mucous membrane of the bladder, with total or partial death, has resulted in an exfoliation of the entire mucous membrane in sheets and flakes. Jewett reports such a case after retention ninety-six hours amounting to nine pints. I will also mention the danger of accidental chemical injection of the bladder in the subsequent care of plastic cases in gynecology. One of the most desper-

perate and aggravated cases of cystitis I ever saw occurred from the accidental introduction of the irrigating catheter into the bladder and injection of quite a quantity of bichlorid solution 1-5000, in a tight restoration of the posterior vaginal wall. I have known that accident to happen sufficiently often to have a special irrigating tube made for these cases that will not go into the urethra.

Decomposition of urine is in most cases the result of bacteria ingress. Ammonia salts from the broken down urea convert the normal slight acidity of the urine into a marked alkalinity, thus precipitating amorphous phosphates, which unite with the magnesia salts to form the ammonio-magnesium compound, the crystals of which are such a constant constituent of cystitic urines. This chemic change continues as long as the decomposing agent is present. The other casual factors are self-explanatory.

In the initial stages of inflammation of the bladder the mucous membrane undergoes the pathologic changes incident to catarrhal processes of that tissue elsewhere, which are intensified by the resulting abnormal condition of the urine. In the presence of pus the mucous membrane breaks down in shreds and admixing with the pus in the urine gives the characteristic sediment in turbid phosphatic urine. Prolonged irrigation is necessary to remove this debris to allow of cystoscopic inspection. The involvement may be localized in hyperemic patches, or general to some demonstrable point of irritation or inspection. Blood may be extravasated under the membrane from contraction on overcharged capillaries, which appear in ecchymotic spots. It also may cover over certain abraded areas after extravasation.

The anatomic changes in the chronic form, like the natural history of this affection, is more a change of degree marked by an arbitrary chronologic standard. A constant change, however, of chronic cystitis is the hypertrophy of the bladder wall and the lessened capacity from resulting contraction.

After thickening of the bladder wall, occlusion of the ureters occurs with damming back of the urine, causing dilatation of the ureters and renal pelves, hydronephrosis. Infection, also, extending will give rise to pus kidney. Diphtheritic inflammations may result in any amount of destruction, that sometimes perforates the bladder and involves adjacent structures.

Frequency of micturition and intense burning, bearing-down pain, during and immediately afterward, are the most evident symptoms. The frequency sometimes amounts to literally 100 times a day, and the constant desire sometimes keeps the woman on the vessel for hours at a time. The pain in severe cases becomes excruciating, causing the patient to scream out in frenzy. It is a clinical picture pathognomonic and distressing. Retention is rare and incontinence infrequent in acute cystitis. Hematuria depends upon the intensity of the inflammation and may vary from a few drops at the end of urination, to such a considerable quantity as to appear almost pure blood. There is an aching, bearing-down feeling of weight in the perineum that is sometimes associated with rectal tenesmus. The supra-pubic region is tender, and the discomfort is increased sometimes with the slightest jar. The legs are drawn up in the recumbent posture, and if the sufferer is able to walk, it is accomplished with pain causing her to shamble in a stooping position.

In graver septic and diphtheritic cases, constitutional symptoms supervene; fever, chills and sweats, sometimes delirium, ending in suppression, uremia and death.

The appearance of the urine is characteristic in chronic cystitis. It is murky and filled with shreds that may be seen floating around. If allowed to stand it will present a thick, slimy sediment that sticks to the bottom of the receptacle when it is inverted. If bacterial fermentation has occurred, either within or without the bladder, the deposit will consist of the alkaline phosphates of a dark brick-red color. Microscopic examination will demonstrate the crystals in the last condition and abundant pus cells, sometimes with red corpuscles as well, frequently entangled in long mucous cylinders. Bladder epithelium will be scattering and more or less abundant, in the acute and chronic forms, respectively. It is quite impossible to discriminate between cystitis and pyelitis by the epithelium found microscopically. The presence of pus or blood gives a decided reaction for albumin. The odor is ammoniacal and fetid. Specific gravity is variable and inconsequential. The absence of the findings in clinical manifestations of cystitis, distinguish cystitis from irritable bladder, a reflex from some cause that patient examination will often reveal.

Aside from the distinct gain in making direct applications to localized diseased areas, the most valuable aid of the cystoscope is the exact diagnosis of the existing condition. Kelly found a sinus communicating with a tubercular ovary which would have been impossible otherwise. In addition to furnishing visual inspection of the entire vesical mucosa, it affords means for determining the presence or absence of disease of one or both ureters and kidneys, which otherwise might be regarded as a cystitis. The accuracy and value of this procedure is scarcely parelleled in mechanical aids to diagnosis, since the introduction of the clinical thermometer.

I believe it is an axiom in medicine that the greater the number of remedies recommended in a given disease, the less reliance can be placed in any of them. This is typically true of the disease under consideration. The whole list of balsams and oils, astringents and antiseptics, acids and alkalies, diuretics and opiates, have been used with routine empiricism. Irrigations have been practiced with nearly everything that is soluble in water, and many drugs that are not. Some misguided enthusiast inspired with a great love for "the eternal fitness of things," has even recommended irrigation with normal urine. I spent the greater part of six months of my residence in a large hospital washing bladders, and have about settled its scope and limitations, at least to my own satisfaction. Instead of using the multitude of irrigating solutions that have been urged by this and that observer, I think we may reduce the number to about four, which are employed for as many reasons. For ordinary purposes normal sterilized salt solution (dram to the quart) is the most useful fluid, in that, it is readily soluble, more cleansing than water, non-irritating and sterile. In chronic cases with alkaline fermentation, a half saturated solution of boric acid seems to be more efficacious. Kelly recommends bichlorid solution 1-100,000, increasing the strength by taking off 5,000 until about 1-20,000 is reached. The infinitesimal strength suggested may be the explanation of why bichlorid has been almost excluded from the bladder.

Salicylic acid is an excellent germicide and is expecially efficacious in penetrating the thick slimy coat

of muco-pus that invests the bladder wall. Eight grains dissolved in an ounce of alcohol and added to a pint of hot water is equal in efficiency to Thiersch's solution. The sovereign remedy in the treatment of inflammed mucous membrane is nitrate of silver, one-tenth to one-half per cent. Stronger solutions should be avoided, and if it causes much pain, a strong salt solution should be injected to convert the nitrate into a harmless chlorid.

All local means are quite inferior to the direct application of remedial agents through the cystoscopic tube, which insuring application to the affected area only, allows the employment of much stronger solutions of silver, 3 to 10 per cent. once a week.

The correct apparatus for bladder irrigation should consist of a glass jar or fountain syringe with gravity tube and glass catheter. The distal end of the rubber tube should have a glass tip to connect by a short piece of tubing with the catheter. The tip facilliates detachment from the intermediate rubber tube instead of the catheter itself. The detachment and readjustment causes unnecessary pain. Where the organ is intolerant to even a few ounces, the little glass piston syringe should be used.

In this synopsis of treatment as frequently occurs in actual practice, I have hastened to the local means to the exclusion, thus far, of the general systemic management, a neglected but important matter.

In the early cases, patients should be put to bed and composure enjoined. She should have a mild non-stimulating diet, milk being the chief article, occasionally dashed with cream to prevent the constipation. Salines here as in all pelvic inflammations are invaluable. Relief from pain had best be obtained if possible from topical means, viz.: the quite hot vaginal douche, Sitz bath, hot-water bags, or compresses to the hypogastrium. Internal medication should be confined to correcting abnormal conditions of the urine; acetate of potash for hyperacidity and benzoic acid for excessive alkalinity.

It is unnecessary to state that many cases are intractable to all forms of medication, and it is fortunate that there remains a perfect assurance to these wretched individuals of complete and entire radical relief. I refer to the artificial vesico-vaginal fistula as applied to the cure of otherwise incurable cases of cystitis in women by that venerable benefactor to suffering women, Dr. Thomas Addis Emmet.

This operation, like the plastic operations devised by Dr. Emmet, is unique in that it has remained unchanged since it was given to a waiting world by its illustrious originator.

The two essentials of rest and drainage are fulfilled and by the union of vaginal mucosa to vesical mucosa patulency of the opening is insured. The beneficence of this procedure to the afflicted sufferers is best proven by their disinclination to have the fistula closed. The operation is best performed in Sims position. The vesico-vaginal septum just behind the urethra is fixed with a tenaculum and incised in the middle line, with knee-bent scissors, on the point of a block-tin sound introduced through the urethra. The mucous surfaces of bladder and vagina are united by silver sutures. Irrigation and time complete the cure. The sutures are removed on the tenth day.

The only caution I will urge is the reiteration of the advice of the great master himself: "Do not close the opening too soon, six months is an average time."

It is a gratifying circumstance that one of the most dreaded maladies that woman is prone to, is curable by one of the simplest and most satisfactory operations in surgery.

SURGERY ONE HUNDRED YEARS AGO.

AN HISTORICAL STUDY

BY DR. GEORGE FISCHER.

DEDICATED TO THE GERMAN SURGICAL ASSOCIATION.

TRANSLATED FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION BY CARL H. VON KLEIN, A.M., M.D.

CHAPTER V.—SURGICAL INSTRUCTION AND LITERATURE.

(*Continued from page 840.*)

During the violent epidemics which prevailed among the troops in the field the enormous number of six hundred physicians and surgeons died within eighteen months. The lack of these was sorely felt, because instruction had almost come to a standstill during the Revolution, and out of eleven French schools scarcely two remained in the least active. At this time Chaussier, who had been called from the convent to Paris, and had rendered the greatest service in the reorganization, founded, in coöperation with Fourcroy in 1794, the nucleus of three new schools in Paris, Montpellier and Strasburg. They founded the *Ecole de Santé* in Paris, one of the finest fruits of the Revolution, which through the need of the moment, proved a brilliant success, and forced into the background the medical schools which had previously dominated in Montpellier. It accomplished the union of medicine and surgery, while at the same time it *trained physicians and surgeons*, among whom there was no division, except that the few who showed a special inclination for it, devoted themselves particularly to the larger operations. Legally every student was obliged to study theoretical and practical surgery. In order to have the necessary number of students, each district must furnish a certain quota: Paris 300, Montpellier 150, Strasburg 100. The state allowed each student 1,200 livres, and vouchsafed to him free access to the practical lectures. Medicine and surgery, together with all the accessory sciences, and also the history of medicine, were taught and twelve chairs, each with an ordinary and extraordinary professor, were created. In the Paris school Chaussier expounded anatomy and physiology, Fourcroy medical chemistry, Lassus and Percy, after the death of Chopart, surgery, Pinel medicine, Lallemand and Sabatier operation, Baudelocque obstetrics; Pelletan and Boyer, after Desault's death, conducted the surgical clinic, Corvisart the medical. Chaussier was a very eloquent and active teacher, who created a new terminology in anatomy and established regular quiz-practice. The study of anatomy was always prized very highly by the French surgeons, in-so-much that most of their literary activity began with such writings, followed by surgical works. Among the most interesting lectures were those of Fourcroy, which were generally so crowded that many were turned away, in spite of the fact that his lecture room accommodated about 1,200 students. He charmed by his unconstrained, penetrating and polished discourse, and frequently blamed his own countrymen because they so neglected the literature of other nations, while he himself valued so highly the services of the German chemists. Lallemand lectured on operations on the hard parts; Sabatier, in clear but somewhat rapid diction, treated of the soft parts.

For practical instruction there were three clinics in

use, in the Hôtel Dieu, in the Charité, and the clinique de perfectionnement in the hospital of the Ecole. The last had twenty-eight beds for difficult and unusual cases, but especially for operation cases, which the professor asked from his colleagues. This did not work well, as a rule, for according to an old custom, those came almost always to the Hôtel Dieu and the professor retained them there. He had in any case to give instruction concerning them, and nothing was more natural than that each professor should keep the most interesting material for himself. Upon the establishment of the school, Desault gave the surgical instruction in the Hôtel Dieu. In this brilliant period so much was being accomplished that the men of the Revolution sought to unite these clinics as closely as possible with the Ecole. But Desault was not greatly interested in it, because he had not been asked for advice at its founding, and in general did not approve of the plan. It might have been also that his prejudice against the accessory sciences, of which the Ecole made very much, contributed to keep him aloof from it. He died soon after. His successor, Pelletan, let things take their own course. The two men were not to be compared. While Desault studied his lectures with the greatest care and never neglected them, Pelletan frequently failed to give a lecture, was negligent, egotistical and poor in results. He divided the lectures with his assistant, the young Giraud, who after the death of Desault, with his pupils, Bichat, Boyer and Lallemand, were among the best teachers of surgery in Paris. Both conducted *pensions*, a provision at that time very useful and beneficial to the cause of instruction. They took young men into their houses and to their tables, gave them instruction in operations privately, took them to visit patients, and reserved for them the best places at the operations in the hospitals. Pelletan charged 1,000 francs quarterly, but fulfilled his promises badly, while Desault furnished board about two-thirds cheaper and favored his pupils in every way possible.

The surgical clinic in the Hôtel Dieu had two rooms, one for men with about 300 beds, and one for women with 150, closely crowded together. Instead of pursuing Desault's method, and performing the operations altogether in the amphitheater, Pelletan almost always operated on the patients in their beds. Let us accompany him upon a *surgical visit*, in order to learn about them along with the *French students*. In the morning, at six o'clock, it begins. As soon as Pelletan enters the room the noise and the running about commence. He and Giraud are followed by thirty internes, to each of whom a certain number of beds are allotted; behind these other students with their clattering wooden shoes. These were generally worn during the Reign of Terror, because of the lack of leather, and continued to be used by most of the students on account of the dirt. Each one pushed in behind Pelletan, so that they often trod upon his feet. When a patient is bound they all crowd to the bedside, in consequence of which only six or eight students can see well. "La jugulaire," cries the surgeon; that is, here a bleeding is to be made on the V. jugularis. Those behind climb upon stools and punch each other in the ribs in order to get forward as much as possible; finally the surgeon is so crowded that he himself scarcely has room. A "Silence, messieurs!" does not suffice. The noise grows louder. A "diable!" or "au nom de Dieu!" follows. Noise and crowding increase, so that the foremost students are pushed over the bed of the patient. It becomes dark around the bed, even on a clear day; "la chandelle!" calls the surgeon; "vous m' étouffez!" the patient struggling for air; "l'eau fraîche!" a student, to refresh his fainting comrade. "Je vous donne un pair de soufflets" sounds from the other side. A student breaks through a bedstead and laments. Pelletan does not know how to help himself; crowded with instruments around him, he takes a handful of blood and calls out, "Je vous jette le sang dans le figure." Under such circumstances the operation is completed. This confusion moves Pelletan to perform a few operations at four o'clock in the morning and to cut the visits short. There was generally a mistake in the clinics, which the visits rendered too hurried; students were not examined, therefore they lounged about inattentively. Sabatier's lecture furnished another student picture. This surgeon was very cordial to strangers and usually gave them a place in the enclosure. The students murmured over this because they could see nothing, but their professor did not change his method. One day, when a few friends were present, a chorus of a thousand voices cries, "Out from the enclosure!" Sabatier, usually a very quiet, peaceable man, sprang up and cried, "I hope, fellow citizens, that I am allowed the privilege of admitting into this enclosure anyone I desire!" Immediately all was still. Sabatier seated himself, whereupon loud and general applause arose, one of the sudden changes of sentiment which one sees almost daily in other things among the French (Wardenburg). The students were classified, according to their accomplishments, into commencans, commencés and avancés, and in regard to their attendance at lectures, were summoned from time to time by the professors. This strictness was occasioned by foresight for the army, for the avancés could, if necessary, be assigned to the field. Two examinations were held yearly. In the Charité *Boyer* officiated as second surgeon, along with the genial but indecisive first surgeon, *Deschamps*. Boyer, a former assistant of Desault, in the best years of his life, was uncommonly active, earnest and decisive, and operated with a steady and sure hand; in fact, one of the best of the Parisian surgeons. His private instruction was of the best, as well as the most popular. Boyer conducted dissections, gave lectures on anatomy, surgery and operations, conducted courses in operating, and examined the students. Since he took only two private pupils, for a certain fee, one could accompany him in his private practice.

The medical clinics attached to the Ecole de Santé in Hôtel Dieu, accomplished nothing; their instruction did not amount to anything; by reason of the hurried visits they were of no real benefit; they ran from one bed to another, inspected so quickly and so incompletely, that they scarcely had time to see, much less to think. There was no instruction tablet at any bed. *The medical clinic of Corvisart, in the Charité, the first which was opened in France*, was much better. According to the statement of his pupil, Dupuytren, he made it the most famous of that time, and there in a period of fifteen years the most excellent physicians of France were trained. Corvisart, an eager follower of Stoll, made very accurate sections, and as a practitioner he was much sought. The Ecole possessed a beautiful library of about 24,000 volumes, which was built up during the revolution, out of the libraries of the Académie de Chirurgie and of the defunct societies. It was under the protec-

tion of Sue and Moreau. It was free of access, but lent only one book at a time to each student. Among the collections, the cabinet of surgical instruments was accessible to all, and was very complete, having been especially enriched by the bequest of Desault. The pathologico-anatomic cabinet contained Desault's specimens, many of wax, and the collections of the veterinary school of Alfort.

The German saw in Paris, the center of the sciences, everything at once, which he could wish for the study of medicine, but no one traveled to Paris for the sake of medicine, and in 1783 Loder wrote from the French capital: "Whoever comes here to study medicine appears to me as one who should go to Constantinople to get instruction in the orthodox Lutheran creed." There was no doubt that the French physicians, in respect to medical knowledge, were behind the Germans; the reverse was true in surgery. Hôtel Dieu had the greatest attraction for the German surgeon. In order to make the most systematic use of this, he had to select and study the most interesting patients, ingratiate himself especially with the internes, and on afternoons accompany them to the sick-beds. In these visits it was the policy to push when one was pushed, in the effort to get as near as possible to the surgeon. The foreigner could nowhere find collections as complete as in Paris. All the practical lectures of the Ecole were very good, and it offered fine facilities for private courses, as well as for anatomy (Bichat) as for surgery. For quick information there were printed collected lectures in the Ecole, with yellow, white and red covers; an almanac was also issued which bore, now a national, now a royal imprint, giving information concerning the institution, the teachers, their residences, etc. Close beside the school lived several booksellers, who dealt chiefly in medical works.

A rare opportunity to see and to hear was offered in like measure in England. It was a principle there that from the beginning of their studies, the students must see the sick daily, while in Germany they began with theoretic lectures, in England the manual part of surgery must first be mechanically learned. One must see the sick, how they were operated upon and bandaged, and then for the first time he studied the propedeutic branches. Although properly only a single famous school existed, in Edinburgh, still there were in London many distinguished physicians and surgeons who gave private lectures, offered courses, and instructed young men in the hospitals. In London there was a mass of material for surgeons and a great many operations were performed. The "pupils" could assist in the hospitals, in bandaging, bleeding, caring for fractures, and the like, and enjoyed free access to the patients at all hours. In special cases, which occurred outside of the regular visiting hours, the boxkeeper, who looked after the bandaging materials, would summon the students for a fee of half a guinea. Certain English teachers, like their French colleagues, took boarders into their houses for 80 to 100 guineas, gave them lectures, and took them to visit private patients. Percival Pott was the best and most popular surgeon of his time in London. In this respect the genial *John Hunter* came next, although his discourse was difficult to understand, as his speech and expression were peculiar. Furthermore it was painful to him to speak, as it was to his brother William, and always cost him much effort. The powerful man, who did not fear a fight with leopards, always took thirty drops of laudanum before the first lecture in every course in order to overcome somewhat his nervousness. He never depended upon his memory. By reason of his genius and penetrating understanding, his lectures, which were accompanied by the exhibition of beautiful specimens, were of the greatest importance. John Hunter gave an especial impulse to the science by the founding of several societies. In 1767, he with Fordyce and the mechanic Cumming, founded a private society of scholars, which met in a coffee house after each sitting of the Royal Society, and discussed the latest discoveries in all branches of science. Later he founded for the London students the Lyceum Medicum Londinense, which held meetings every Friday, and gave a prize of six guineas in gold to the student who wrote the best thesis on a given question. In the winter of 1786 he founded in his own house a medical club, and invited there every Sunday all the prominent physicians and surgeons of London, as well as strangers who were recommended to him. Here numerous guests met in the evening from 8 to 11, discussed scientific questions and were served with coffee, tea and refreshments. Else, Bromfield and Blizard were good surgical teachers. Blizard attended very regularly, and met many colleagues who would not willingly soil their fingers and never touched a patient except at the first examination and operation, but he left no patient who was not bandaged by himself, or by the students in his presence. London possessed excellent museums. The most famous was that of William Hunter, which was rich in the rarest specimens, and once in the week was open, free to the public. Besides, Hunter possessed fine collections of shells, corals, petrifactions, a coin cabinet which was said to surpass even that of Vienna; also a library. By his will these collections were to be used for thirty years by his heirs for the benefit of Drs. Bailly and Cruikshank of London, to further their lectures; at the end of that time they went to the University of Glasgow. Next after this, was the museum of J. Hunter (of which more later), Rackstrow, with many anatomic and pathologic preparations. Even then as now, the English surgical instruments were the best, but were very dear; an umbilical truss for adults cost ten guineas, a simple inguinal truss, five guineas, a double one, six guineas. The articles of the instrument-maker, Savigny, in London, illustrated and described in catalogues, were world-renowned. Sheldrake was called as truss-maker to the Westminster hospital; he also wrote much concerning rupture and deformities. The beadle of the Collegium Chirurgicum made very good bougies.

We have mentioned that the cost of living and of visiting the London hospital drove many young men to *Edinburgh*, in which University a spirit of freedom dominated all the medical sciences. Here the first English clinic was instituted. The students organized medical societies, where by the exchange of their ideas they developed themselves symmetrically and learned to express themselves with facility. Therefore, the most of the Edinburgh inaugural addresses with their compact, unvarnished descriptions, without the adornment of the tedious citations of German works, raised the university to great honor. They first became known in Germany through the *Göttinger Anzeigen*, in which H. von Haller recommended them for immitation. Edinburgh possessed a fine academic hospital, which was erected at the suggestion of Alexander Monro, and possessed a number of emi-

nent surgeons, among them that same Monro with his two sons, Benjamin Bell and others.

The facts given show very plainly that Germany, by reason of the lack of hospitals, and of facilities for a thorough practical training, stood far behind foreign nations. No wonder then that the German surgeon in his home was thrown upon the study of books. Let us therefore make a few observations, concerning the *literature of the subject*. In the first half of the century the leather-bound books of the German surgeons, appeared almost regularly with a verbose dedication to some distinguished patron; then followed the preface which was adorned with some kind of religious sentiment, praise of the divine goodness and humble thankfulness for the providence which vouchsafed the author health and time to write the book. Very often the close friends of the author had urged him, and he had unwillingly published it. He did not forget, however, to take some notice of the possibility of unfavorable criticism. The conclusion of the preface was made up of two or more expressions of good will by colleagues in Latin or German verse. The following poem from C. L. Walther's "Med. chir. Schatz," of the year 1715, will serve as an example:

As the honey bees of Hybla yield us their sweet stores,
They seemingly invite us to share in their industry.
A song for all humanity the busy insect pours,
A peace song for all nations that war by land and seas;
Herr Walther in his labors heeds the lesson of the bees,
He falters not nor wearies, and counts no labor vain,
And his life is consecrated to the healing of disease,
Rich success crowns his endeavor and to all the world is gain.
This book of so rare value, Science claims it for her own,
And for each it holds a treasure, let who wishes freely ask.
Would the poet sing his praises, let him sing of work well done.
I bespeak a wreath of laurel justly crowning his long task.
May God grant that, like the roses, he may bloom another year
With a second season's harvest, rich and plenteous, ripe and fair.

To his most honored colleague these few lines are hurriedly addressed by
CARL ANDREAS HARDE, Surgeon, Halle.

In the books themselves, which were generally insipid and prolix, the Almighty was asked for his blessing on every important operation. At the end the author took a pious leave of his reader. The copperplates in most of them, were of extraordinary beauty. Comparing with these the writings of the second half of the century, we find that the later books lack the poetic effusions, but the turgid dedications, and the pious prefaces in which the authors seek to defend themselves against ungrounded and malicious criticism, remain very much the same; and also the insipid exhortations to others to write books in which a surgeon frequently first asked learned physicians whether or not his works deserved to be published. As, for example, Bilguer assures Theden he never would have become an author, if he had not been inspired by Zimmermann, and begs the pardon of the physicians when he, in speaking of a medical question, ventures into their territory. C. C. von Siebold waged a ceremonious war with his friends before he published his surgical daybook.

The servility of the former century had also affected the scholars and physicians so that they often assumed a groveling attitude toward high rank and wealth and were dazzled by external glory. They were not ashamed to dedicate altogether insignificant works, scarcely three or four pages long, to princes and dukes. And the thanks? When Morand presented the Memoirs of the Akademie der Chirurgie to Pope Benedict XIV., he received an answer from the Pope. E. Platner says in this connection that a German prince showed this honor to every insignificant French author on similar occasions, but to a German he would scarcely condescend to be gracious. In 1764 Professor A. F. Pallas dedicated his "Surgery," to the "Hoch- und Wohlgeborenen, Hocherfahrenen und Hochgelharten Herrn, Herrn Albert Freiherrn von Haller," his great, most gracious and honorable patron. In order to honor the celebrated A. G. Richter. they admitted his infant yet in its cradle to membership in the Academy of Göttingen, and one of the teachers, Köler, dedicated to it in its fourth year, as the "best and most hopeful of boys," synopses for the study of the Latin language. The physicians joined in the adulation given to the hero of Germany, Frederick the Great, after the battle of Rossbach, insomuch that George Forster in Berlin complained that even the most reserved and intelligent people deified the king, and groveled foolishly. The *Berliner Medicinisch-chirurgischen Nachrichten* was dedicated to the crown prince, Frederick, by Professor Schaarschmidt, and the Surgeon-Generals Bilguer and Schmucker, dedicated their "Chirurgische Wahrnehmungen," to his majesty, and Surgeon-General Theden, his new "Bemerkungen und Erfahrungen." The medical biographer Börner launches the following rhapsody: "Your most glorious royal majesty of Prussia, in whose blessed person are united the wisdom of Solomon, the spirit, courage and strength of Alexander the Great, the benignity of Emperor Titus, a possessor of true learning, a protector of the Muses, a patron of scholars, King Frederick." Even the philosophic Zimmermann, who went to Berlin in 1771 to be operated upon for rupture by Schmucker, was so dazzled by Frederick the Great, that his friend Meckel, in whose house he lived, could write the following: "Zimmermann, completely enraptured by the exceeding glory of his royal majesty, felt as though he had been given a new life, that he should have the fortune to see and to honor personally the greatest wonder of our century, our most wise king of Prussia. For the well known kindness and humanity of our most gracious monarch, not only called the English surgeon before the throne but quickened and uplifted him at the first glance, into a sort of amazement, at the most gracious and beneficent words and speech to such a degree that, completely enraptured with joy and love, he was for an hour and a half a spectator and admirer of this royal genius, of his great learning and wisdom, and of his deep insight even into medical science. He often said that these precious hours had fulfilled the desire of his life, and that he had arrived at one of his most glorious days, when he was able to see and speak to and love the hero of his century." Later, Zimmermann wrote to Meckel in French that he had slept well every night during his sickness "except that one in Potsdam, when after the interview with the king, he was made sleepless for joy, as if in an ecstasy of delight."

(To be continued.)

SOCIETY PROCEEDINGS.

Medical Association of Georgia.

Abstract of Proceedings of the Forty-eighth Annual Meeting, held at Macon, Ga., April 21, 22 and 23, 1897.

FIRST DAY—MORNING SESSION.

The Association convened in the Academy of Music, and was called to order at 10 A.M. by the President, Dr. GEO. H. NOBLE, of Atlanta.

Prayer was offered by the Rev. F. M. REESE of Christ Church.

Addresses of Welcome were delivered by Dr. W. F. HOLT

and Hon. N. E. HARRIS, of Macon, the response to which was made by Dr. FRANK M. RIDLEY, of La Grange.

The Society elected 101 new members.

After the presentation of the report of the Committee of Arrangements by Dr. Howard J. Williams, of Macon, and the report of the Committee on Program, by Dr. Louis H. Jones, of Atlanta, the reading of papers was proceeded with.

The first paper read was by Dr. M. A. CLARK, of Macon, entitled

ENTERO-COLITIS OF INFANCY.

The author prefers the term entero-colitis to intestinal catarrh, because it more fully expresses the pathology of the disease. While in adults and children we recognize enteritis and colitis as separate and distinct diseases, yet in infants the symptoms are not sufficiently well marked to enable us to differentiate them. The inflammation of the small and large intestines may be ulcerative, membranous, or, as is more frequently the case, a simple inflammation of the mucous and submucous linings of the intestines.

Causation.—Cold is often a cause of entero-colitis, and in a majority of the severer cases, it plays an important part. The most important factors, however, in the causation of this disease are temperature and diet, which the author considered at some length. The majority of fatal cases are bottle-fed infants. Of 1,943 fatal cases reported by Holt, only 3 per cent. were wholly breast-fed. All writers agree that outside of the cities, especially in the rural districts, it is of far less severity.

The author then dwelt upon the symptomatology, diagnosis and prognosis of the disease.

Coming to the treatment, he said the first and most important duty of the physician is to prevent disease. So in this disease, we must consider preventive treatment. Every infant should wear throughout all seasons flannel next to the body until the period of infancy is passed and childhood well established. With reference to diet, the all important factor, not only in the cause of this disease, but also in the cure of it is diet. In the majority of cases the infant is bottle-fed, yet we find some severe cases that are breast-fed. In every case we must examine the milk to see that it is suitable, and when not, have the diet changed at once. All writers are agreed that next to mother's milk, cow's milk is the best food for infants. The many ways of preparing the milk have been so well shown by Smith, Rotch, Holt and others, that the author simply referred his hearers to their valuable works.

At the onset of the disease, when the tongue is heavily coated and the stools of a greenish color, he gives a laxative. He finds tanningen a most valuable remedy for diarrhea. It is insoluble in the stomach, and in the intestines is converted into tannic acid, the best astringent. By its use he has overcome what would have proved to be prolonged and severe attacks of this disease. The peptenzyme is an aid to digestion and tends to suppress nausea. Where there is much tympanites bismuth is an excellent remedy. The author remarked concerning this drug that we are often disappointed in its results because it is given in too small doses. He does not hesitate to give a child of six months 20 grains of the subnitrate every two hours, when the stools are frequent and the bowels tympanitic. The salicylate is recommended by some as being more antiseptic. He prefers the subnitrate, as he gets better results from its use. With tanningen, the ideal intestinal astringent; bismuth, the reliable antacid; water, the great cleanser, and hyd. perox. the most potent antiseptic, with strict attention to diet and clothing, we may reasonably expect the majority of cases to recover.

Dr. K. P. Moore, of Macon, reported some very interesting and unusual cases in abdominal and gynecologic work.

FIRST DAY—AFTERNOON SESSION.

Dr. HENRY R. SLACK, of La Grange, read a paper with this caption:

BLUE PYOKTANIN IN THE TREATMENT OF INOPERABLE MALIGNANT GROWTHS,

and reported five cases. The author at first referred to contributions on this subject by Professor von Mosetig and Willy Meyer. He speaks of its advantages as follows:

1. Its analgesic effects are marked, as patients soon rest easily without the aid of morphin.

2. The improvement of the function of the part involved. A man who could hardly speak so as to be understood talked without difficulty after the third injection.

3. The improvement in general health which has taken place in all five of the cases.

4. The element of hope that is added to the life of suffering men, brightening the remainder of their sojourn.

While the author does not claim to have cured his patients, still he has relieved their pains and rendered them less burdensome to themselves and their friends. He agrees with Dr. Meyer in von Mosetig's conclusions, that it has been proved by practice, that parenchymatous injections of inoperable malignant growths with pyoktanin can produce disappearance of malignant tissue, though in exceptional cases, and can heal neoplastic ulcerations. Pyoktanin, when properly used, is certainly a palliative treatment for cancer that deserves an honest, hopeful trial, for by its use many have been relieved and some cured.

Dr. J. B. MORGAN, of Augusta, read a paper entitled

THE TREATMENT OF CUTANEOUS CANCERS.

In discussing the treatment of skin cancers, it is well to understand at the beginning that the author does not intend to define the different varieties of cancer, or to discuss the different theories as to their etiology. A fact of paramount importance in the successful treatment of cancers of the skin is that everything depends upon early and thorough removal of all diseased tissue. The general concensus of opinion now is that all cancers can be cured, if thoroughly removed before the epithelial cells have infiltrated the connective tissue and neighboring glands; for it is generally conceded that it is the proliferation and infiltration of the epithelial cells which cause cancer to invade other tissues and organs and become disseminated through the system. This being the case, the only treatment that can offer anything like a cure, is the one which has for its object the early and complete removal, or destruction, of all the morbid epithelia. In cancer, where we find no limiting membrane, no sharply defined guide as to the extent of the infiltration beyond the tumor mass, other local means than the knife may be more properly indicated for its successful removal. The object of the author's paper was to emphasize this point. He is a strong believer in the use of the knife in suitable cases, and frequently employs it.

In the last four years he had treated fourteen cases of skin cancer with caustics, and in not a single instance has he seen the slightest indication of a recurrence. Five of the cases were from three to four years old; three of them from two to three years old, and the other six were treated within the last two years. One of the number died from pneumonia three years after being operated upon; the others are all living and in good health. Caustic potash quickly liquefies tissue, and at one sitting a very large tumor can be destroyed. Chlorid of zinc as a caustic can be used in stick form, in solution or in a paste. It causes more pain than either caustic potash or arsenious acid. Bougard's paste is one of the best means we possess in the treatment of small cutaneous cancers. To apply these caustics successfully demands a certain amount of experience, but which anyone can acquire after applying them two or three times. The greatest cause of failure in their use is the neglect to treat the case energetically until thoroughly satisfied that all diseased tissue has been removed.

Dr. S. RUMBLE of Goggansville followed with a paper entitled

PUERPERAL ECLAMPSIA, WITH REPORT OF CASES.

The author presented the following conclusions:

1. That puerperal eclampsia is a disease the etiology of which is as yet *sub judice*.

2. That it often develops after the uterus is emptied of the product of conception.

3. That morphia is the most positive and prompt remedy which can be used to arrest the eclamptic seizure. It obtunds nervous sensibility and arrests muscular spasm. It counteracts irritation of the nerve centers, whether the irritation is due to a toxemia or is of a reflex character.

4. That veratrum is not only an unreliable remedy, but one fraught with danger in this disease.

5. That chloroform and chloral hydrate are excellent adjuvants to morphia in arresting the spasms and maintaining the equilibrium of the nervous centers.

6. That cerebral congestion is a result and not the cause of the convulsion. Hence the author does not favor blood letting.

7. We can do a great deal in lessening the frequency, if not the ratio of mortality, in this disease by timely and proper prophylactic treatment.

Dr. M. B. HUTCHINS of Atlanta reported

TWO CASES OF MALIGNANT TUMOR AFFECTING THE BREAST AND THEIR TREATMENT

and made some remarks upon malignant growths in general.

Case I.—Mrs. A. G., age 38; occupation, housework and washing. Scirrhus of the right mammary gland. She first noticed a "small lump" in the right breast, just above and to the right of the nipple. She stated that her husband had struck her there several times. Has had one child. No abscess of the breast. Examination showed a hard, rather well-defined

tumor the size of a small orange in the middle and upper part of the gland. The upper part of the nipple was slightly retracted. There was occasional stinging sensations. The essayist could feel no enlargement of glands either at the lower border of the muscle or in the axilla. The patient weighed 175 pounds and was in robust health. She had quite a mustache and chin beard.

Drs. L. P. Stephens and J. L. Campbell assisted at the operation. Every antiseptic precaution was employed. Elliptical incisions were made well away from the borders of the tumor, in the healthy skin, from the narrow part of the pectoralis major to the sternum and down to the pectoral sheath. The sheath of the muscle and the mammary gland were removed by a clean dissection, no tearing, leaving a clear wound with only the muscle fibers at its floor. There was no perceptible gland at the lower edge of the muscle, nor could any be felt in the axilla. The excision was done in less than ten minutes. There was very little hemorrhage. Redundant fat under the edges of the incisions was trimmed away with scissors, then the flaps were made with a knife. An inch incision was made in the lowest part of the gland cavity for drainage. It was necessary to ligate but one artery in the whole wound, hot water and torsion controlling the rest of the bleeding. The wound was brought together with four deep tension sutures of silkworm gut, about an inch apart. Then a continued suture of catgut was made from the outer end to near the inner, where a small opening was left for drainage with 10 per cent. iodoform gauze. The line of suture was covered with iodoform one part, boric acid five parts, then many layers of 10 per cent. iodoform gauze, salicylated cotton and three wide bandages were applied; the arm being included finally and additional support given the wrist with a towel. Two days later the gauze drain below was removed and the incision closed with one suture. Five days after the operation all dressings were removed. The surface was perfectly clean, and the wound seemed to have healed *per primam*, except at the outer end and at the internal drainage opening. The gauze was removed from the latter, being followed by about half an ounce of bloody fluid. After pressure to remove any remaining fluid, another piece of gauze was inserted. The low drainage incision was granulating nicely, with a little oozing of bloody serum visible. Dressings were made as at the time of operation. Eight days after the operation the inner drainage and the four tension sutures were removed. There was perfect primary union save at the two extremities. Suture removed from the lower drainage incision also. This wound was clean and healing. Surface covered with a lighter dressing and the arm left free. Two days later only the lower drain remained unhealed. Healing was complete in the lower drain eighteen days after the operation. At the inner end of the main incision there was a lump of compressed fat. Patient was seen nearly four months after the operation for the last time. The inner half of the united wound showed perfect union, the outer half a line of cicatrix. A small cicatrix marked the site of the lower drain. There was no sign of recurrence, nor of glandular involvement. She left the city and the author has not seen her since. He was informed that she remained in good health. The operation was done in this case with full knowledge of its probable incompleteness, this being due to the wishes of the patient and to the fact that it was preferable to complete it at such later time as it should become necessary. Four months later the time seems not to have arrived.

Case 2 was similar in many respects to the one reported and was successful in its results.

A paper entitled "Influenza with different Phases and Nervous Tendencies," by Dr. W. O'Daniel of Bullard's was read by title, at the request of the author.

Second Day—Morning Session.

Dr. J. S. Todd of Atlanta contributed a paper entitled

Cause and Prevention of Tuberculosis. Is it a Curable Disease?

The author stated that tuberculosis, so long as it remained an unmixed infection, was not a deadly disease, and he believes it to be in this stage one of the most easily curable of the bacterial diseases. Except in the form of acute miliary and meningeal tuberculosis, it was but seldom the direct cause of death. As soon as it became a mixed infection, and was something more than tuberculosis, it then took rank as the most fatal of all diseases now afflicting mankind. In combatting this disease there were two points of attack, and if the wisdom and skill of the profession be directed to these the death rate from tuberculosis would be much reduced in the near future. The first and most important method of dealing with the disease consisted of the application of preventive measures. Second, the one with which he was now concerned, consisted of the treatment of the disease while it remained an unmixed infection. When this was done tuberculosis would cease to be "the terror of the laity and the cross of the physician."

Dr. J. C. Olmsted of Atlanta followed with a paper on "Expert Testimony in Criminal Cases involving the Plea of Insanity."

Dr. V. D. Lockhart of Maysville reported an interesting and instructive case of cystocele complicating labor.

Dr. E. H. Richardson of Atlanta read a paper entitled "Atypical Fevers."

Dr. W. L. Champion of Atlanta followed with a contribution entitled

Meddlesome Instrumentation in Urethral Diseases.

The author stated that with our knowledge of the anatomy of the urethra and of the dangers of passing small steel instruments, false passages should be a thing of the past. The soft bougies, though not as durable as the steel sounds, accomplish the same results, and should always be used when a small instrument is called for; and even the larger ones are just as serviceable and produce less pain on introduction.

The routine practice of passing sounds into the bladder in treating strictures in the penile portion of the urethra is not only useless but bad surgery. There is always a liability of infecting the bladder and producing irritation of the prostatic urethra. The short, straight sound passed through the stricture accomplishes the same result as the curved instrument, and the danger of producing complications is lessened.

In treating stricture of the urethra by dilatation, how often should we pass an instrument? This question has been written upon, argued and discussed at length, and there seems to be a wide variance of opinion as to the length of time that should elapse between the sittings. In the use of sounds for the treatment of stricture there can be no fixed law in regard to the intervals to be allowed between the sittings.

Each case must be watched separately, and the results of the introduction of the instrument noted, so as to determine when to use the instrument again. His opinion is that the majority of men not studying the effects produced by an instrument passed through an organic stricture, influenced by the patient's desire for a rapid cure, are prone to pass instruments too often, thereby setting up an acute inflammatory condition and prolonging the treatment. The author's experience in the treatment of urethral strictures coincides with that of Dr. Keyes of New York.

With reference to internal urethrotomy in the deep urethra, there were men who did this operation with but few accidents, but the best practice was to positively refuse to interfere unless the patient would submit to the external operation. The custom of doing internal urethrotomy in the office, and allowing the patient to go home in a hack or on a car could not be too strongly condemned. It was an operation fraught with danger, and so we should guard against any mishap, giving the patient the best treatment possible. The operation should be done at home, and the patient kept in bed for at least five days, and it would be safer still to require a week's rest.

In closing the author emphasized the importance of urethral irrigation before surgical operations upon the urethral canal, whether it be only the passage of a sound or an internal urethrotomy. If this was done there would be fewer cases of urethral fever and less irritation and inflammation after using instruments. Within the past twelve months, he had used "hydrostatic irrigation" in the treatment of inflammatory conditions of the urethra and bladder, and considers it far superior to any other method.

Dr. E. R. Anthony, of Griffin, contributed a paper on the relations of the State Board of Medical Examiners to the profession of the State.

Second Day—Afternoon Session.

Dr. Louis H. Jones, of Atlanta, read a paper entitled "Physical Signs in Diseases of the Lungs."

Dr. A. W. Stirling, of Atlanta, followed with a contribution entitled

Remarks on Certain Ocular Disturbances of General Interest.

The author confined himself to one or two of those ocular lesions which are likely to be of general interest. Of conjunctival affections he mentioned one-sided hyperemia, which he said should always suggest a foreign body in the conjunctival sac or on the cornea. Few of the minor operations in surgery would better repay the practitioner than a dexterous manipulation of the eye in such cases, and one should not be hasty in excluding a foreign body.

Passing to the cornea, the speaker said that our chief inter-

est lies with ulcers and with foreign bodies. The latter were often difficult to find, and when found may be deeply embedded in the corneal tissue, and not always quite easy of removal. Even after the simplest abrasion by the foreign body, or by the instrument used in its removal, the protecting epithelium was destroyed, and not infrequently germs thereby gain access to the corneal tissue, and severe ulceration, with or without hypopyon results. Strict antisepsis was therefore advisable, frequently also a bandage for twenty-four hours, and sometimes atropin. Corneal abscesses and ulcers had a very varied etiology, and were often dependent upon general ill health. They usually demanded shade, atropin and antiseptic applications, but when near the periphery eserin might replace atropin in the absence of iritis. Should the ulcer perforate, there was then less likelihood of prolapse of the iris into the wound. Some of the severest forms of ulcer might be rapidly cut short by certain destructive agents, notably the electric cautery, the sharp spoon, strong solutions of perchlorid of mercury, mercury in glycerin, or alcohol, and frequently very prompt treatment in them also is required to save the whole eye from destruction.

While cataract is looked upon as usually a purely local disturbance, except in the rare cases in which it is associated with certain diseases, as diabetes, there is one form of opacity in the lens which is believed to have important relationships to conditions of general health. This is called zonular or lamellar, and sometimes congenital cataract, and is by far the most frequent type of lenticular opacity met with in children. It affects a varying amount of the lens and the opacity produced by it may be so slight as to interfere but little with vision, or so great as to disqualify its owner for ordinary work.

The author then passed on to the consideration of iritis, saying that it was a fairly common disease, and one which, on account of circumstances, has frequently to be treated in great measure by the non-specialist. The likelihood of an attack proving destructive to vision depends to a great extent upon its early recognition and prompt and energetic treatment.

Dr. SAMUEL LLOYD, of New York, gave an excellent demonstration of Roentgen rays. He showed skiagraphs of a case of knock-knee, of congenital disappearance of the fingers and toes, and a case of scissor-legs, upon which he operated some weeks ago. The latter patient was a young girl whose thigh bones were crossed, thus preventing her from using the limbs. About nine weeks ago she was taken to the Post-Graduate Hospital of New York, when Dr. Lloyd performed the operation of osteotomy. Both thigh bones were fractured and placed in position for a normal reunion. The bones were subjected to a ten minute exposure of the ray, and by the use of the fluoroscope Dr. Lloyd was able to announce a perfect union of the bones. He related other experiments which were equally successful, which were made with fractured bones of the knee and elbow and with diseased bones of the hand. Dr. Lloyd also showed skiagraphs of a case of fracture of the forearm and one of osteoma of the clavicle.

THIRD DAY—MORNING SESSION.

Dr. R. M. HARBIN, of Rome, read a paper entitled

RAPID DILATATION OF THE UTERUS A CONSERVATIVE OPERATION.

His attention was recently called to an article in the *British Medical Journal* by Dr. Fournel, condemning rapid dilatation of the uterus as not being a conservative operation. So far as his observation goes, the dangers from the operation were very slight, where proper precautions have been taken. Divulsion of the uterus offers more relief in selected cases than the more complicated and dangerous operations, and should be done before advising the latter. The main indications for the operation are narrowness of the os and cervix of the uterus, flexions with dysmenorrhea and sterility, and the reflex symptoms arising from same. Personal observation leads the author to believe that many cases of obstinate nausea and vomiting of pregnancy could be relieved by rapid dilatation, shortly before an expected conception, as the practitioner often had to perform abortion in cases that conceived very soon afterward, rendering the operation again necessary. The cause of dysmenorrhea and sterility in a majority of cases was mechanical, and dilatation is usually followed by a relief of the symptoms, if not a cure of the sterility. The contraindications are pyosalpinx and acute peritonitis. In an aggravated case of chronic pelvic peritonitis rapid dilatation can be done with safety after a few weeks of general and local treatment. The operation should be done about a week before menstruation, and the technique was simple.

Dr. WM. S. GOLDSMITH, of Atlanta, made some remarks on

FISTULA IN ANO.

The relative frequency of fistula in ano, as compared with other rectal affections, induced the author to consider this subject. Some differences of opinion exist among authors as to the frequency of fistula. Allingham states that in a collection of 4,000 consecutive rectal cases in the Out-patient Department of St. Mark's Hospital, 1,057 were fistula in ano, 196 abscesses, 151 of which subsequently became fistula, and that for a period of several years, two-thirds of the cases operated on in this hospital were for fistula. The author believed that the incision of all fistulous tracts and sinuses, and the complete section of the sphincter muscles with the knife is the only method by which the surgeon can assure the patient that the operation will result in a rapid and successful cure. The author has yet to see a wound made in the area usually involved fail to promptly and satisfactorily granulate, provided it has had the benefit of a thorough eradication of all morbid tissues. To further elucidate this point, suppose all branches and pockets have been opened, should the operation be pronounced completed? Decidedly no. And just here, in the opinion of the author, Dr. Mathews executes a procedure that is rather tedious, in that he advises the excision of the whole bottom of the wound, using pinch forceps and curved scissors, and states that he is not satisfied with simply scraping out the sinuses. Dr. Goldsmith thinks the careful use of the Volkmann spoon, together with the application of peroxid of hydrogen, is far preferable. After incising the main tract and all sinuses, satisfying himself that the superior extremity of the original tract is reached, and making a rather prolonged search for pockets and hidden branches, he trims away the over-hanging edges of skin along the entire cut area, paying particular attention to the edges and vicinity of the original external apertures. This is followed by a thorough curettage of the bottom of the sinus, and the removal as far as possible of every particle of the so-called pyogenic membrane. The wound is irrigated and sponged as dry as circumstances will permit. The author now uses peroxid of hydrogen, full strength, applied in the form of a spray by an ordinary hand atomizer. This valuable agent has an excellent effect on the débris unavoidably retained in the wound. The hydrogen used in this manner penetrates into every minute pocket and cuts out particles of tissue that is impossible to remove, except by the total excision of the entire lining membrane. Having decided acid reaction, it is most valuable in checking the otherwise profuse oozing, accompanying the simple curetting or excision. The splendid results attained by the use of peroxid of hydrogen in the manner described, are obtainable in other lines of work where the same action is desired, and has been used by Dr. Westmoreland and the author most satisfactorily in the treatment of chronic osteomyelitis and all varieties of indolent ulcers.

Dr. HUNTER MCGUIRE of Richmond, Va., read a paper (by invitation) entitled

REMARKS ON APPENDICITIS

with a report of twenty-six cases operated on during the past twelve months. The author considered, at the outset, the importance of operating for appendicitis during an interval between attacks. All of the nineteen cases of chronic, or relapsing appendicitis embraced in the report recovered. In looking over his record book for previous years he finds that he has operated on 33 other cases with only one fatal result, thus making a total of 52 consecutive operations for this form of appendicitis with one death. One of the cases was operated on for him by Dr. Joseph Price. The results he has attained he says are no better than many other operators have had, and he attributes his success largely to the fact that, if possible, he operates during the quiescent stage, as originally suggested by Mr. Treves in 1886, when danger of sepsis has passed and inflammatory symptoms have disappeared. The danger is practically nothing if the surgery is clean.

Under the head of symptoms which determine the safety of postponing operative interference until the acute stage has passed, the author said when we remember that fully one-half of all the cases of appendicitis recover from the first attack; that spontaneous resolution takes place when peritonitis, exudation and sometimes even suppuration, have been present; and that a large number of cases which recover without an operation in the primary attack remain well and have no recurrence of the disease, the question of when to operate is a very nice, difficult and always an important one. Dr. McGuire agrees with Dr. Wyeth, that if we have a competent surgeon, one skilled in abdominal work, and the patient can be operated on within twelve hours of the first symptoms of the attack 99 per cent. will be cured. But we frequently see the cases after these twelve hours have expired and surgeons of experience in such work are not always within call. He is not in favor of an operation in all cases as soon as a positive diagnosis is made.

Value and limits of saline purgation.—In an ordinary case,

not a fulminating one, after a short time the pain abates, the fever lessens, the pulse gets slower, the abdomen less hard and tender, and all the urgent symptoms more or less subside, they do not disappear, but are less pronounced, and then there comes in a remedy which in his hands has been as certainly valuable for good as quinin in malaria or arsenic in neuralgia; that is, saline purgatives, given in frequent doses until the patient is freely and repeatedly purged.

Relative frequency of the disease in the two sexes.—From the reports of many surgeons we learn that appendicitis is much more common in males than in females, the proportion stated being one to four. This has not, however, been the author's experience. In his cases for the past year, thirteen were females and thirteen were males, and this has been about the proportion of all of his cases, amounting now to 155, the cases being nearly equally divided between the two sexes.

Dr. McGuire then dwelt on the differential diagnosis between appendicitis and disease of the ovaries and tubes.

With reference to the technique of operation, he has this to say: "In fulminating cases the abdomen should be opened by a long incision, the gangrenous appendix ligated and cut off, and the belly washed out with gallons of sterilized water. Six or eight strips of iodoform gauze should be carried through the incision to different parts of the cavity. The wound should not be sutured, but every facility afforded for easy drainage. If such a case is not seen until the bowels are distended with gas, and the patient prostrated or collapsed, it is useless to operate. I have never seen a case of fulminating appendicitis without premonitory symptoms. A careful inquiry into the past history will always show former attacks, which possibly at the time were not recognized. In cases where there is a deap-seated localized abscess it should be rendered accessible by a free abdominal incision. The abscess should be carefully walled off from adjacent tissues by pieces of gauze and then opened. The pus should be sponged out and the appendix carefully searched for and removed. The abscess wall should be dissected out and the bowels examined to see that they are intact. It is impossible to treat such cases extraperitoneally, and when you have exposed the cavity to the danger of infection there is no more excuse for doing incomplete work than in other forms of abdominal surgery."

In cases where the abscess has approached the anterior abdominal wall and become adherent to the peritoneum, he simply opens and drains it, and makes no effort to extract the appendix if not loose, or to remove the wall. To endanger the infection of the general cavity by too prolonged an attempt to find the appendix is not good surgery.

In cases of chronic or relapsing appendicitis, Dr. McGuire does not advise an operation until the patient has had two attacks. Sometimes the inflammation which attends the first attack renders the patient free from a second attack, because of some obliterating pathologic change in the appendix. He makes one exception to this rule. If, several weeks after the first attack he finds induration or tenderness, or both, over the region of the cecum, he advises the patient to have the operation done at once. The operation should always be done between the attacks. In every case all adhesions should be freed, and any portion of the omentum in contact with the appendix, which is suspected of being contaminated, should be removed.

Third Day—Afternoon Session.

Dr. J. C. LeHardy, of Savannah, read a paper in which he outlined an act to create a Commissioner of Health and Drainage for the State of Georgia.

Dr. J. D. Chason of Iron City, read a paper entitled

puerperal septicemia; its cause and treatment.

The author regards a patient with this disease in a position strikingly analogous to one bitten by a snake. A poison is introduced into the blood which causes minute changes in the tissues and also produces a decided shock to the nervous system. The patient may be prostrated by the primary depression. If this can be averted here, as in snake bite, the patient will recover, unless the diffuse changes have too deeply involved vital organs. In this disease we must stop the generation and absorption of poison, and if this can be done we need not fear the slight damage done by the poison already absorbed.

The indications for the treatment are threefold: 1, to stop the generation and absorption of the poison; 2, to neutralize the poison already absorbed by free stimulation; 3, to increase the action of the excretory organs with a view to the elimination of the poison already absorbed and to prevent further absorption.

Dr. R. R. Kime of Atlanta, followed with a paper on

the present status of puerperal infection.

The author said that the keystone to success in puerperal infection is elimination and drainage, counteracting absorbed toxins and germs, checking their further development, and sustaining the patient by such remedies and measures as will conserve the vital forces of patient the most. After more than ten years of practical demonstration of drainage, both uterine and alimentary, in puerperal infection, the author is more fully convinced than ever of its utility. Not only does it lessen suffering, relieve more cases of puerperal infection, and save more lives than any other means now at our command, but also prevents more pelvic complication, saves more uteri, tubes and ovaries from subsequent disease and leaves them in a condition to perform their normal functions, which can not be said of any other plan of treatment known to the profession of today. All cases of puerperal infection should be fed systematically liquid, easily digested food, and where they fail to take sufficient nourishment some of the prepared foods should be given. Of medicinal remedies, quinin given in 5 to 10 grain doses, every four to six hours, acts well in many cases, tending to check germ development and inflammation, incidentally helping to control temperature without detriment to the patient. Strychnia combined with bitter tonics, antiseptics or digestants, given every four hours with nourishment, is beneficial in most cases. In weak, debilitated cases some form of iron should be given. Hypnotics should be given if needed to procure rest or sleep. Stimulants in moderation, systematically given, will do good in very weak cases; yet strychnia, quinin and digitalis are more permanent and beneficial in their results.

Surgical measures are indicated when the infection becomes localized with pus formation, and some claim in general peritonitis. Pus accumulations in the broad ligaments, as a rule, should be drained through the vagina by Henrotin's method, whether they be due to cellulitis, peritubal inflammation or ruptured pus tubes. In pyosalpinx and ovarian abscess authorities differ as to whether the vaginal or abdominal route is best.

Hysterectomy is advocated in cases of thrombo-phlebitis, multiple abscesses in uterine wall, etc., but it is a very difficult matter to diagnose the condition requiring such a surgical procedure. Where the septic infection is so marked as to produce such serious lesions of the uterus, it has usually passed beyond the reach of hysterectomy before a differential diagnosis can be made demanding such an operation. While the infection is progressing the author doubts the utility of such a measure, but after the infection and inflammation have become localized in the uterus, tubes, or ovaries, then it is time to consider such operative measures as are best suited to the individual case.

Dr. J. L. Hiers of Savannah, read a paper entitled "Some Interesting Ophthalmological Cases" in which he reported 87 cases of phlyctenular and corneal ulcers treated with tincture of iodin, 74 cases requiring only one application, 9 cases two applications, 2 cases a third application, and 3 cases had to be cauterized by the actual cautery.

Dr. George Horine of Americus, read a paper on "Lupus of the Nose, its Medical and Surgical Treatment." The author reported three cases of this disease which were successfully treated by the use of pyoktanin.

Dr. J. M. Crawford of Atlanta, reported a successful rhinoplastic operation for the loss of the nose. He also reported a case in which he operated for removal of the drum membrane and necrosed bones in chronic suppurative aural catarrh.

Several papers were read by title and referred to the Committee on Publication.

The following officers were elected: President, Dr. J. B. Morgan of Augusta. First Vice-president, Dr. L. G. Hardman of Harmony Grove. Second Vice-president, Dr. J. L. Hiers of Savannah.

The next place of meeting to be Cumberland Island, on the third Wednesday in April, 1898.

Eczema in Cyst Fluids and their Diagnostic Significance.—Observation of a case of pancreatic cyst in which the fat-emulsifying action was vere slight and irregular, induced Zehuisen to investigate the fermentative action in various fluids, transudations, exudations, ovarial cysts, etc. He found that diastatic fermentation was almost invariably present, while the tryptic and fat-emulsifying action was invariably absent. The results with urine were contradictory. The discovery of fat-emulsifying and tryptic action is therefore very important in diagnosing a pancreatic cyst, while diastatic fermentation has no significance in this respect.—*Wien. Klin. Rundschau*, March 14 from *Cbl. f. Inn. Med.*, No. 40, 1896.

Special Courses in Medicine and Surgery to be given in Philadelphia the Week Preceding and that Following the Meeting of the American Medical Association.

The course of instruction, which is free to members of the AMERICAN MEDICAL ASSOCIATION for the week preceding and that following the meeting of this ASSOCIATION in Philadelphia, includes a series of clinical lectures and demonstrations given by the Faculty of the teaching colleges of Philadelphia, and of laboratory, dispensary and ward demonstrations given by the staff of the various hospitals of the city and medical institutions.

The college courses are as follows:

COLLEGE COURSES.

WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA CLINICS.

Monday, May 24, 12 m., Gynecology, Hannah T. Croasdale. 1 p.m., Obstetrics, Anna E. Broomall.
Tuesday, May 25, 12 m., Pediatrics, Edward P. Davis. 1 p.m., Neurology, Charles K. Mills.
Wednesday, May 26, 12 m., Medicine, Frederick P. Henry. 1 p.m., Ophthalmology, Amy S. Barton.
Thursday, May 27, 12 m., Otology, Charles H. Burnett. 1 p.m., Dermatology, Henry W. Stelwagon.
Friday, May 28, 12 m., Laryngology, Emma E. Musson. 1 p.m., Surgery, John B. Roberts.
Saturday, May 29, 12 m., Medicine, Frederick P. Henry. 1 p.m., Orthopedics, James K. Young.
Monday, May 31, 12 m., Gynecology, Anna M. Fullerton. 1 p.m., Obstetrics, Anna E. Broomall.
Saturday, June 5, 12 m., Pediatrics, Edward P. Davis. 1 p.m., Neurology, Charles K. Mills.
Monday, June 7, 12 m., Medicine, Frederick P. Henry. 1 p.m., Surgery, John B. Roberts.
Tuesday, June 8, 12 m., Otology, Charles H. Burnett. 1 p.m., Dermatology, Henry W. Stelwagon.
Wednesday, June 9, 12 m., Laryngology, Emma E. Musson. 1 p.m., Orthopedics, James K. Young.
Thursday, June 10, 12 m., Otology, Charles H. Burnett. 1 p.m., Dermatology, Henry W. Stelwagon.
Friday, June 11, 12 m., Laryngology, Emma E. Musson. 1 p.m., Ophthalmology, Amy S. Barton.
Saturday, June 12, 12 m., Medicine, Frederick P. Henry.

PHILADELPHIA POLYCLINIC CLINICS.

Monday, May 24, 12 m., Laryngology, W. J. Freeman. 1 p.m., Ophthalmology, S. D. Risley.
Tuesday, May 25, 12 m., Medicine, P. C. Griffith. 1 p. m., Neurology, Charles K. Mills.
Wednesday, May 26, 12 m., Otology, B. A. Randall. 1 p.m., Dermatology, Van Harlingen.
Thursday, May 27, 12 m., Obstetrics, E. P. Davis. 1 p.m., Pediatrics, J. M. Taylor.
Friday, May 28, 12 m., Surgery, J. B. Roberts. 1 p.m., Orthopedics, T. G. Morton.
Saturday, May 29, 12 m., Genito-urinary, T. R. Neilson. 1 p.m., Gynecology, B. F. Baer.
Monday, May 31, 12 m., Laryngology, A. W. Watson. 1 p.m., Ophthalmology, Edward Jackson.
Saturday, June 5, 12 m., Medicine, S. Solis-Cohen. 1 p.m., Neurology, Charles K. Mills.
Monday, June 7, 12 m., Otology, R. W. Seiss. 1 p.m., Dermatology, J. A. Cantrell.
Tuesday, June 8, 12 m., Obstetrics, E. P. Davis. 1 p.m., Pediatrics, J. M. Taylor.
Wednesday, June 9, 12 m., Surgery, L. W. Steinbach. 1 p.m., Orthopedics, H. A. Wilson.
Thursday, June 10, 12 m., Genito-urinary, Edward Martin. 1 p.m., Gynecology, J. M. Baldy.
Friday, June 11, 12 m., Laryngology, E. L. Vansant. 1 p.m., Ophthalmology, G. E. de Schweinitz.
Saturday, June 12, 12 m., Medicine, A. A. Eshner. 1 p.m., Neurology, C. W. Burr.

MEDICO-CHIRURGICAL COLLEGE CLINICS.

Monday, May 24, 12 m., Medicine, Wm. E. Hughes. 1 p.m., Pediatrics, W. C. Hollopeter.
Tuesday, May 25, 12 m., Dermatology, John V. Shoemaker. 1 p.m., Orthopedics, J. P. Mann.
Wednesday, May 26, 12 m., Genito-urinary, J. V. Shoemaker. 1 p.m., Gynecology, W. E. Ashton.
Thursday, May 27, 12 m., Surgery, Ernest Laplace. 1 p.m., Ophthalmology, L. Webster Fox.
Friday, May 28, 12 m., Medicine, J. M. Anders. 1 p.m., Neurology, C. W. Burr.
Saturday, May 29, 12 m., Laryngology, A. H. Cleveland. 1 p.m., Otology, E. B. Gleason.
Monday, May 31, 12 m., Obstetrics, W. Frank Haehnlen. 1 p.m., Pediatrics, W. C. Hollopeter.
Saturday, June 5, 12 m., Gynecology, W. E. Ashton. 1 p.m., Orthopedics, J. P. Mann.
Monday, June 7, 12 m., Surgery, Ernest Laplace. 1 p.m., Genito-urinary, J. V. Shoemaker.
Tuesday, June 8, 12 m., Dermatology, John V. Shoemaker. 1 p.m., Ophthalmology, L. Webster Fox.
Wednesday, June 9, 12 m., Medicine, J. M. Anders. 1 p.m., Neurology, C. W. Burr.
Thursday, June 10, 12 m., Laryngology, A. H. Cleveland. 1 p.m.. Otology, E.B. Gleason.
Friday, June 12 m., Medicine, J. M. Anders. 1 p.m., Pediatrics, W. C. Hollopeter.
Saturday, June 13, 12 m., Orthopedics, J. P. Mann. 1 p.m., Surgery, Ernest Laplace.

JEFFERSON MEDICAL COLLEGE CLINICS.

Monday, May 24, 12 m., Medicine, H. A. Hare. 1 p.m., Neurology, F. X. Dercum.
Tuesday, May 25, 12 m., Demonstration in Bacteriology, W. M. L. Coplin. 1 p.m., Dermatology, H. W. Stelwagon.
Wednesday, May 26, 12 m., Laryngology, W. S. Jones. 1 p.m., Ophthalmology, H. F. Hansell.
Thursday, May 27, 12 m., Orthopedics, H. W. Wilson. 1 p.m., Surgery, J. H. Brinton.
Friday, May 28, 12 m., Genito-urinary, Orville Horwitz. 1 p.m., Gynecology, E. E. Montgomery.
Saturday, May 29, 12 m., Obstetrics, Edward P. Davis. 1 p.m., Pediatrics, E. E. Graham.
Monday, May 31, 12 m., Medicine, H. A. Hare. 1 p.m., Neurology, F. X. Dercum.
Saturday June 5, 12 m., Otology, S. MacC. Smith. 1 p.m., Medicine, J. C. Wilson.
Monday, June 7, 12 m., Laryngology, D. Braden Kyle. 1 p.m., Ophthalmology, G. E. de Schweinitz.
Tuesday, June 8, 12 m., Orthopedics, H. A. Wilson. 1 p.m.. Surgery, W. W. Keen.
Wednesday, June 9, 12 m., Genito-urinary, Orville Horwitz. 1 p.m., Gynecology, J. C. DaCosta.
Thursday, June 10, 12 m., Obstetrics, Edward P. Davis. 1 p.m., Surgery, W. Joseph Hearn.
Friday, June 11, 12 m., Surgery, J. M. Barton. 1 p. m., Gynecology, E. E. Montgomery.
Saturday, June 12, 12 m., Surgery, J. Chalmers DaCosta.

UNIVERSITY OF PENNSYLVANIA CLINICS.

Monday, May 24, 12 m., Surgery, John Ashhurst. 1 p.m., Orthopedic Surgery, De F. Willard.
Tuesday, May 25, 12 m., Genito-urinary, Edward Martin. 1 p.m., Gynecology, C. B. Penrose.
Wednesday, May 26, 12 m., Obstetrics, B. C. Hirst, Subject: Labor obstructed by a contracted pelvis and its management. 1 p.m., Pediatrics and Surgery, J. P. Coyne Griffiths, T. Wm. White.
Thursday, May 27, 12 m., Medicine, Wm. Pepper. 1 p.m., Neurology, H. C. Wood.
Friday, May 28, 12 m., Otology, B. Alex. Randall. 1 p.m., Dermatology, L. A. Duhring.
Saturday, May 29, 12 m., Laryngology, C. P. Grayson. 1 p.m., Ophthalmology, W. F. Norris. (This one only).
Monday, May 31, 12 m., Surgery, John Ashhurst. 1 p.m., Orthopedics, De F. Willard.
Saturday, June 5, 12 m., Genito-urinary, Edward Martin. 1 p.m., Gynecology, C. B. Penrose.
Monday, June 7, 12 m., Obstetrics, B. C. Hirst. 1 p.m., Pediatrics, J. P. C. Griffiths.
Tuesday, June 8, 12 m., Medicine, James Tyson. 1 p.m., Neurology, H. C. Wood.
Wednesday, June 9, 12 m., Otology, B. Alex. Randall. 1 p.m., Surgery, F. Wm. White.
Thursday, June 10, 12 m., Laryngology, C. Grayson. 1 p.m., Medicine, John Musser.
Friday, June 11, 12 m., Surgery, John Ashhurst. 1 p.m., Orthopedics, De F. Willard.
Saturday, June 12, 12 m., Genito-urinary, Edward Martin. 1 p.m., Gynecology, C. B. Penrose.

LABORATORY WORK.

Monday, May 24, 10 a.m., Philadelphia Board of Health, Practical Bacteriology (City Hall), A. C. Abbott.

Tuesday, May 25, 10 a.m., University Hospital, Skiagraphy (Pepper Laboratory), C. Lester Leonard.

Wednesday, May 26, 10 a.m., University of Pennsylvania, Skiagraphy (Department of Physics), A. W. Goodspeed.

Thursday, May 27, 10 a.m., University of Pennsylvania (Department of Hygiene) Pathogenic Bacteria, A. C. Abbott. 10 a.m., Medico-Chirurgical College, Skiagraphy, C. L. Furbush. 10 a.m., Woman's Medical College, Microscopic examination of urine, sputum and blood, A. A. Stevens.

Friday, May 28, 10 a.m., University of Pennsylvania (Department of Hygiene) Pathogenic Bacteria, A. C. Abbott. 10 a.m., Medico-Chirurgical Skiagraphy, C. L. Furbush. 10 a.m., Jefferson Medical College, Examination of urine, sputum and blood, H. F. Harris.

Monday, May 31, 10 a.m., Woman's Medical College, Examination of urine, sputum and blood, A. A. Stevens. 10 a.m., University of Pennsylvania (Pepper Laboratory), Practical Bacteriology, D. Reisman. 10 a.m., Jefferson Medical College, Pathogenic Bacteria, W. M. L. Coplin.

Monday, June 7, 10 a.m., Medico Chirurgical College, Demonstrations in rare Tumors, Joseph McFarland. 10 a.m., Polyclinic, Skiagraphy, Max J. Stern. 10 a.m., Jefferson Medical College, Surgical Disinfection, J. Chalmers DaCosta and T. L. Rhoads.

Tuesday, June 8, 10 a.m., Medico-Chirurgical, Demonstrations of rare Tumors, Joseph McFarland. 10 a.m., Polyclinic, Skiagraphy, Max J. Stern. 10 a.m., Jefferson, Practical Disinfection, W. M. L. Coplin.

Thursday, June 10, 10 a.m., University of Pennsylvania (Chemical Laboratory), Urinalysis, sugar, albumin, etc., John Marshall. 10 a.m., University of Pennsylvania (Pepper Laboratory), Practical Pathology, D. Reisman. 10 a.m., Jefferson Medical College, Autopsies (Methods, W. M. L. Coplin.

Friday, June 11, 10 a.m., University (Chemical Laboratory), Urinalysis, John Marshall. 10 a.m., Woman's Medical College, Bacterial Demonstration, B. Lewis.

Daily at the Pepper Laboratory from 3 to 5 in the afternoon, under the personal supervision of Dr. Alfred Stengel, Director, A. E. Taylor will demonstrate blood; S. S. Kneass, will show bacteria; W. G. Spiller and Joseph Sailer will exhibit pathologic specimens of the nervous system; C. Lester Leonard will carry on his work with the Roentgen rays; D. L. Edsall will show the modern methods of investigating diseases of the stomach; Samuel Hamill will examine sputum; G. S. Woodward will explain the methods of testing milk.

The Laboratories of Bacteriology, Pathology and Histology of the Jefferson Medical College will be open daily at 11 o'clock under the charge of Drs. D. Braden Kyle and W. M. L. Coplin.

SURGICAL COURSE—DAILY OUT-PATIENT DEPARTMENT.

8 a.m., Woman's Hospital: Drs. Kate W. Baldwin, Clara Reimel, Margaret Butler, Elizabeth Clark, Caroline Van Horn, Catherine Storm and Miriam Butt.

9 a.m., Hospital and Dispensary of the Alumnæ of the Woman's Medical College of Pennsylvania: Mary R. Wilcox, Rachel Skidelsky.

9:30 a.m., West Philadelphia Hospital for Women: Linda M. Stewart, R. Anna Breed, Elizabeth Griscom, Mary Griscom, Anna Sharpless and Helena Goodwin.

10 a.m., St. Agnes Hospital: Ellwood R. Kirby.

10 a.m., Pennsylvania Hospital: Joseph M. Spellissy.

10 a.m., German Hospital: (Mondays, Wednesdays and Saturdays) George D. Ross and A. D. Whiting.

10 a.m., Methodist Episcopal Hospital: Jas. P. Hutchinson.

11 a.m., Howard Hospital: Henry Kierated.

11 a.m., Children's Hospital: James P. Hutchinson and Robert G. LeConte.

11 a.m., Polyclinic: T. S. K. Morton and L. W. Steinbach.

12 m., Jefferson Medical College Hospital: J. Chalmers Da Costa.

12 m., Presbyterian Hospital: J. P. Tunis.

12 m., University Hospital: Charles H. Frazier.

12:30 p.m., St. Joseph's Hospital: Drs. McKee and Baker.

1 p.m., Medico-Cairurgical College Hospital: B. F. Shimwell.

5 p.m., Polyclinic Hospital: John B. Roberts and Max J. Stern.

6 p.m., West Philadelphia Hospital for Women: Esther L. Blair, Helen Murphy and Margaret Butler.

SURGERY—CLINICAL LECTURES AND WARD DEMONSTRATIONS.

Monday, May 24. 11 a.m., Polyclinic: T. S. K. Morton. 12 m., University of Pennsylvania: John Ashhurst, Jr. 1 p.m., Methodist Hospital: E. W. Holmes. 3 p.m., Presbyterian Hospital: Henry R. Wharton. 5 p.m., Polyclinic: John Roberts.

Tuesday, May 25. 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Pennsylvania Hospital: T. G. Morton. 1 p.m., Episcopal Hospital: T. R. Neilson. 3 p.m., St. Agnes Hospital: Edward Martin. 5 p.m., Polyclinic: Max J. Stern.

Wednesday, May 26. 11 a.m., Polyclinic: T. S. K. Morton. 11 a.m., Pennsylvania Hospital: John Ashhurst, Jr. 12 m., University of Pennsylvania: J. William White. 1 p.m., Methodist Hospital: E. W. Holmes. 3 p.m., Presbyterian Hospital: Henry R. Wharton. 5 p.m., Polyclinic: John B. Roberts.

Thursday, May 27. 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Medico-Chirurgical: Ernest Laplace. 1 p.m., Jefferson: John H. Brinton. 3 p.m., Howard Hospital: Edward Martin. 5 p.m., Polyclinic: Max J. Stern.

Friday, May 28. 11 a.m., Polyclinic: T. S. K. Morton. 12 m., Polyclinic: John B. Roberts. 1 p.m., Episcopal Hospital: T. R. Neilson. 1 p.m., Woman's Medical College Hospital: John B. Roberts. 3 p.m., Presbyterian: H. R. Wharton. 5 p.m., Polyclinic: John B. Roberts.

Saturday, May 29. 11 a.m., Pennsylvania Hospital: Richard Harte. 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Pennsylvania Hospital: T. G. Morton. 1 p.m., Philadelphia Hospital: Edward Martin. 3 p.m., Methodist Hospital: E. W. Holmes. 5 p.m., Polyclinic: Max J. Stern.

Monday, May 31, 11 a.m., Polyclinic: T. S. K. Morton. 12 m., University of Pennsylvania: John Ashhurst, Jr. 1 p.m., Presbyterian: H. R. Wharton. 3 p.m., St. Agnes Hospital: Edward Martin. 5 p.m., Polyclinic: John B. Roberts.

Saturday, June 5, 11 a.m., Pennsylvania Hospital: Richard Harte. 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Medico-Chirurgical: Ernest Laplace. 1 p.m., Philadelphia: Edward Martin. 3 p.m., Children's Hospital: H. R. Wharton. 5 p.m., Polyclinic: Max J. Stern.

Monday, June 7, 11 a.m., Polyclinic: T. S. K. Morton. 12 m., Medico-Chirurgical Hospital: Ernest Laplace. 1 p. m., Woman's Medical College: John B. Roberts. 3 p.m., Children's Hospital: H. R. Wharton. 5 p.m., Polyclinic: John B. Roberts.

Tuesday, June 8, 11 a.m., Pennsylvania Hospital: John Ashhurst, Jr. 12 m., Episcopal Hospital: T. R. Neilson. 1 p.m., Jefferson Hospital: W. W. Keen. 3 p.m., Howard Hospital: Edward Martin. 5 p.m., Polyclinic: Max J. Stern.

Wednesday, June 9, 11 a.m., Polyclinic: T. S. K. Morton. 12 m., Polyclinic: L. W. Steinbach. 1 p.m., University of Pennsylvania; J. William White. 3 p.m., Children's Hospital: H. R. Wharton. 5 p.m., Polyclinic: John Roberts.

Thursday, June 10, 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Medico Chirurgical Hospital: Ernest Laplace. 1 p.m., Jefferson Hospital: Joseph Hearn. 2 p.m., Howard Hospital: Charles Frazier. 3 p.m., St. Agnes: Edward Martin. 5 p.m., Polyclinic: Max J. Stern.

Friday, June 11, 11 a.m., Polyclinic: T. S. K. Morton. 12 m., Episcopal Hospital: T. R. Neilson. 1 p.m., Woman's Medical College: John Roberts. 3 p.m., Presbyterian Hospital: H. R. Wharton. 5 p.m., Polyclinic: John B. Roberts.

Saturday, June 12, 11 a.m., Polyclinic: L. W. Steinbach. 12 m., Jefferson Medical College: J. Chalmers Da Costa. 1 p.m., Methodist Hospital: E. W. Holmes. 3 p.m., Philadelphia Hospital: Edward Martin. 5 p.m., Polyclinic: Max J. Stern.

Dr. Max J. Stern will give two cadaveric demonstrations of the technique of some modern surgical operations at dates to be later announced.

The following Out-patient Departments will be open for the treatment of medical cases at the hours named:

8 a.m., Woman's Medical College: Kate W. Baldwin, Clara Reimel, Margaret Butler, Elizabeth M. Clerk, Caroline Van Horne, Katherine L. Storm, Miriam M. Butt.

9:30 a.m., West Philadelphia Hospital for Women: Lida M. Stewart, R. Anna Breed, Esther L. Blair, Elizabeth W. Griscom, Mary W. Griscom, Helen Murphy, Anna P. Sharpless, A. Helena Goodwin, Margaret Butler.

9 a.m., Hospital and Dispenary of the Alumnæ of the Woman's Medical College of Pennsylvania: Miriam M. Butt, Rebecca Fleisher, Rachel Williams.

10 a.m., Pennsylvania Hospital: Henry Fisher.

10 a.m., Episcopal Hospital: Clarence Lincoln and Cyrus Moore.

11 a.m., St. Joseph's Hospital: Washington Baker (Tuesday and Friday).

11 a.m., Howard Hospital: A. E. Roussel and Charles Wirgman.

12 m., St. Agnes Hospital; A. H. Strecker.

12 m., Jefferson Hospital: Julian L. Salinger and T. G. Ashton.

12 m., University Hospital: M. Howard Fussell.
12 m., Medico-Chirurgical Hospital: G. W. Pfromm.
1 p.m., Orthopedic Hospital: S. Weir Mitchell, Wharton Sinkler, Morris J. Lewis.
12 m., Presbyterian Hospital: Guy Hinsdale.
2 p.m., Episcopal Hospital (Mondays and Thursdays): Harvey Shoemaker.
4 p.m., St. Joseph's Hospital: Telt (Monday, Wednesday, Thursday and Saturday.)
6 p.m., West Philadelphia Hospital for Women: Lida M. Stewart, R. Anna Breed, Esther L. Blair, Elizabeth Griscom, Helen Murphy, Anna P. Sharpless, A. Helena Goodwin, Margaret Butler.

MEDICINE.

CLINICAL LECTURES AND WARD DEMONSTRATIONS.

Daily—11 a.m., Presbyterian Hospital, Roland Curtin; 3 p.m., Presbyterian Hospital, John Musser; 4 p.m., Municipal Hospital (Infectious Diseases), Wm. M. Welch.

Monday, May 24, 11 a.m., St. Agnes', B. Stahl; 12 m., Jefferson, Hobart A. Hare; 12 m., Medico-Chirurgical, William E. Hughes; 3 p.m., Philadelphia, William E. Hughes; 3 p.m., Philadelphia, Frederick A. Packard; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 5 p.m., Polyclinic, A. A. Eshner.

Tuesday, May 25, 11 a.m., St. Agnes', A. A. Stevens; 12 m., Polyclinic, Crozer Griffith; 1 p.m., Philadelphia Hospital, John Musser; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., University Hospital, Alfred E. Stengel; 3 p.m., Philadelphia Hospital, Frederick A. Packard; 3 p.m., Polyclinic (Diseases of Chest), Thos. J. Mays; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Wednesday, May 26, 11 a.m., St. Agnes', B. Stahl; 12 m., Woman's Medical College, F. P. Henry; 12 m., Polyclinic, S. S. Cohen; 3 p.m., Philadelphia Hospital, W. E. Hughes and F. A. Packard; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 5 p.m., Polyclinic, A. A. Eshner.

Thursday, May 27, 11 a.m., St. Agnes', A. A. Stevens; 12 m., University, William Pepper; 1 p.m., Philadelphia, John Musser; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., Polyclinic (Diseases of Chest), Thos. J. Mays; 3 p.m., University Hospital, Alfred Stengel; 4:30 p.m., St. Joseph's Hospital, H. B. Allyn; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Friday, May 28, 11 a.m., St. Agnes', B. Stahl; 12 m., Medico-Chirurgical, J. M. Anders; 3 p.m., Philadelphia Hospital, W. E. Hughes and Frederick Packard; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 5 p.m., Polyclinic, A. A. Eshner.

Saturday, May 29, 11 a.m., St. Agnes', A. A. Stevens; 12 m., Woman's, F. P. Henry; 1 p.m., Philadelphia, John Musser; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., University, A. E. Stengel; 3 p.m., Polyclinic (Diseases of Chest), T. J. Mays; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Monday, May 31, 12 m., Jefferson, Hobart A. Hare; 1 p.m., University, A. E. Stengel; 3 p.m., Philadelphia Hospital, James Tyson; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 4:30 p.m., St. Joseph's Hospital, L. Marshall; 5 p.m., St. Joseph's Hospital, A. A. Eshner.

Saturday, June 5, 11 a.m., St. Agnes', A. A. Stevens; 12 m., Presbyterian, John Musser; 12 m., Polyclinic, J. P. Crozer Griffith; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., Polyclinic (Diseases of Chest), Thos. J. Mays; 3 p.m., Philadelphia Hospital, A. E. Stengel; 4:30 p.m., St. Joseph's Hospital, H. B. Allyn; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Monday, June 7, 11 a.m., St. Agnes', B. Stahl; 12 m., Medico-Chirurgical, Wm. E. Hughes; 12 m., Woman's Medical College, F. P. Henry; 12 m., Polyclinic, S. S. Cohen; 3 p.m., Philadelphia Hospital, James Tyson; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 5 p.m., Polyclinic, A. A. Eshner.

Tuesday, June 8, 11 a.m., St. Agnes', A. A. Stevens; 12 m., University, James Tyson; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., Philadelphia Hospital, Alfred E. Stengel; 3 p.m., Polyclinic (Diseases of Chest), Thos. J. Mays; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Wednesday, June 9, 11 a.m., St. Agnes', B. Stahl; 12 m., Medico-Chirurgical, J. M. Anders; 3 p.m., Philadelphia, James Tyson; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 5 p.m., Polyclinic, A. A. Eshner.

Thursday, June 10, 11 a.m., St. Agnes', A. A. Stevens; 12 m., Polyclinic, J. P. Crozer Griffith; 1 p.m., University, John Musser; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., Polyclinic (Diseases of Chest), Thos. J. Mays; 3 p.m., Philadelphia Hospital, A. E. Stengel; 4:30 p.m., St. Joseph's Hospital, L. Marshall; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Friday, June 11, 11 a.m., St. Agnes', B. Stahl; 12 m., Medico-Chirurgical, J. M. Anders; 3 p.m., Polyclinic (Diseases of Chest), Judson Daland; 3 p.m., Philadelphia Hospital, James Tyson; 5 p.m., Polyclinic, A. A. Eshner.

Saturday, June 12, 11 a.m., St. Agnes', A. A. Stevens; 12 m., Woman's Medical College, T. P. Henry; 2 p.m., Polyclinic (Diseases of Stomach), D. D. Stewart; 3 p.m., Polyclinic (Diseases of Chest), T. J. Mays; 3 p.m., Philadelphia Hospital, A. E. Stengel; 5 p.m., Polyclinic (Diseases of Chest), A. E. Tussey.

Alfred Stengel will give two demonstrations of the performance of autopsies at the German Hospital on date which will be announced later.

NEUROLOGY.

HOSPITAL SERVICES FOR MENTAL AND NERVOUS DISEASES.

The following neurologic services for outdoor patients are conducted daily:

Hospital of University of Pennsylvania, 12 to 1 p.m., H. C. Wood.

Hospital of the Jefferson Medical College, 12 to 1 p.m., F. X. Dercum.

Medico-Chirurgical Hospital, 1 to 2 p.m., C. W. Burr.

Polyclinic Hospital, 3 to 4 p.m., Charles K. Mills and C. W. Burr.

Orthopedic Hospital and Infirmary for Nervous Diseases, 1 to 2 p.m. Physicians, S. Weir Mitchell, Wharton Sinkler and Morris Lewis; Assistant Physicians, J. M. Taylor, Guy Hinsdale and J. K. Mitchell; Electrician, J. H. W. Rhein.

The Neurologic Department of the Philadelphia Hospital, which includes beds for three hundred cases of organic nervous disease, and the Insane Department of the hospital, with more than eleven hundred patients, is visited at least three times a week by each member of the neurologic staff on duty, with whom arrangements can be made to visit the wards. The neurologists now on duty are James Hendrie Lloyd and C. W. Burr.

Dispensary services for nervous diseases are also held at the Howard Hospital, Broad and Catherine Streets, and at the Northern Dispensary, Sixth Street and Fairmount Avenue.

CLINICAL LECTURES AND WARD DEMONSTRATIONS.

Monday, May 24, 3 to 4 p.m., Philadelphia Polyclinic, Clinical Lecture, C. K. Mills. 4 to 5 p.m., Clinical Lecture, C. W. Burr.

Tuesday, May 25, 3 to 4 p.m., Infirmary for Nervous Diseases, Clinical Lecture, W. Sinkler. 4 to 5 p.m., Clinical Lecture, J. K. Mitchell.

Wednesday, May 26, 3 to 4 p.m., Philadelphia Polyclinic, Clinical Lecture, C. K. Mills. 4 to 5 p.m., Electrotherapeutics, J. W. McConnell.

Thursday, May 27, 3 to 4 p.m., Philadelphia Hospital, Clinical Lecture, J. H. Lloyd. 4 to 5 p.m., Pepper Laboratory, University Hospital, Clinico-pathologic Demonstrations, W. G. Spiller.

Friday, May 28, 3 to 4 p.m., Jefferson College Hospital, Clinical Lecture, F. X. Dercum. 4 to 5 p.m., Electrotherapeutics, M. H. Bochroch.

Saturday, May 29, 3 to 4 p.m., Philadelphia Polyclinic, Clinico-pathologic Demonstrations, A. O. J. Kelly. 4 to 5 p.m., Infirmary for Nervous Diseases, Electrotherapeutics, J. H. W. Rhein.

Monday, May 31, 3 to 4 p.m., Philadelphia Hospital, Clinical Lecture, C. W. Burr. 4 to 5 p.m., University Hospital, Electrotherapeutics, Charles S. Potts.

Saturday, June 5, 3 to 4 p.m., Jefferson College Hospital, Clinical Lecture, F. X. Dercum. 4 to 5 p.m., Infirmary for Nervous Diseases, Electrotherapeutics, J. H. W. Rhein.

Monday, June 7, 3 to 4 p.m., Philadelphia Hospital, Clinical Lecture, J. H. Lloyd. 4 to 5 p.m., Clinical Lecture, C. W. Burr.

Tuesday, June 8, 3 to 4 p.m., Infirmary for Nervous Diseases, Clinical Lecture, W. Sinkler. 4 to 5 p.m., Clinical Lecture, J. K. Mitchell.

Wednesday, June 9, 3 to 4 p.m., Philadelphia Polyclinic, Clinical Lecture, C. K. Mills. 4 to 5 p.m., Electrotherapeutics, J. W. McConnell.

Thursday, June 10, 3 to 4 p.m., Philadelphia Hospital, Clinical Lecture, J. H. Lloyd. 4 to 5 p.m., Pepper Laboratory, University Hospital, Clinico-pathologic Demonstrations, W. G. Spiller.

Friday, June 11, 3 to 4 p.m., Jefferson College Hospital, Clinical Lecture, F. X. Dercum. 4 to 5 p.m., Electrotherapeutics, M. H. Bochroch.

Saturday, June 12, 3 to 4 p.m., Philadelphia Polyclinic, Clinico-pathologic Demonstrations, A. O. J. Kelly. 4 to 5 p.m., University Hospital, Electrotherapeutics, Charles S. Potts.

GYNECOLOGY AND OBSTETRICS.

In the following Out-patient Departments the diseases of women will be treated daily at the hours stated.

8 a.m., Woman's Hospital: Marie K. Formad, Frances Hachette, Sarah Chapin, Caroline Purnell and Ruth Clement.

9:30 a.m. and 12:30 p.m., West Philadelphia Hospital for Women: Lydia M. Stewart, R. Anna Breed, Elizabeth Griscom, Mary Griscom, Anna Sharpless, Helena Goodwin.

12 m., Jefferson Medical College Hospital: John M. Fisher.

12 m.. Medico-Chirurgical College: Walter B. Woods.

12 m., University of Pennsylvania: John H. Girvin and Lawrence S. Smith.

12 m., Howard Hospital: B. C. Hirst, John B. Shober.

12 m., Hospital and Dispensary of the Alumnæ of the Woman's Medical College: Lucy M. Tappan, Mary E. Allen, Mary W. Griscom.

6 p.m., West Philadelphia Hospital for Women: Esther F. Blair, Helen Murphy and Margaret Butler.

West Philadelphia Hospital for Women: Tuesdays and Fridays are operating days, 2 p.m.

At the Polyclinic B. F. Baer will operate Mondays and Saturdays at 1 p.m.; J. M. Baldy will operate Tuesdays and Wednesdays at 10 a.m.; H. A. Slocum will operate Tuesdays and Fridays at 5 p.m.

OPERATIONS AND CLINICS—GYNECOLOGY AND OBSTETRICS.

Monday, May 24. 10 a.m., Howard Hospital: John B. Shober. 12 m., Woman's Hospital: Hannah T. Croasdale. 1 p.m., Woman's Hospital (Obstetrics): Anna Broomall. 3 p.m., Lying-In Charity: G. M. Boyd, O. Hopkinson or J. R. Wilson.

Tuesday, May 25. 10 a.m., Private Hospital: Joseph Price. 1 p.m., University Hospital: C. B. Penrose. 3 p.m., University Hospital (Obstetrics—ward visit): B. C. Hirst.

Wednesday, May 26. 10 a.m., St. Joseph's Hospital: E. E. Montgomery. 12 m., University Hospital (Obstetrics—labor obstructed by a contracted Pelvis and its management): B. C. Hirst. 1 p.m., Medico-Chirurgical Hospital: W. E. Ashton. 3 p.m., Jefferson Maternity (Obstetrics): E. P. Davis.

Thursday, May 27. 10 a.m., Kensington Hospital for Women: C. P. Noble. 12 m., Jefferson (Obstetrics): E. P. Davis. 3 p.m., Jefferson Maternity (Obstetrics): E. P. Davis.

Friday, May 28. 10 a.m., Gynecean Hospital: J. M. Baldy. 1 p.m., Jefferson Hospital: E. E. Montgomery. 3 p.m., Lying-in Charity: G. M. Boyd, O. Hopkinson, W. R. Wilson.

Saturday, May 29. 9 a.m., Philadelphia Hospital: R. C. Norris. 10 a.m., Polyclinic: B. F. Baer. 12m., Jefferson (Obstetrics): E. P. Davis. 3 p.m., University of Pennsylvania (Obstetrics): B. C. Hirst.

Monday, May 31. 10 a.m., Kensington Hospital for Women: C. P. Noble. 12 m., Medico-Chirurgical (Obstetrics): W. Frank Haehnlen. 12 m., Woman's Medical College: Anna M. Fulleron. 3 p.m., Lying-in Charity: G. M. Boyd, O. Hopkinson, W. R. Wilson.

Saturday, June 5. 9 a.m., Philadelphia Hospital: R. C. Norris. 10 a.m., Private Hospital: Joseph Price. 12 m., Medico-Chirurgical: W. E. Ashton. 3 p.m., University Hospital (Obstetrics—ward visit) B. C. Hirst.

Monday, June 7. 10 a.m., Howard Hospital (Gynecology): B. C. Hirst. 12 m., University Hospital (Obstetrics): B. C. Hirst. 2 p.m., Lying-in Charity: G. M. Boyd, O. Hopkinson and W. R. Wilson.

Tuesday, June 8. 10 a.m., Polyclinic: B. F. Baer. 12 m., Polyclinic (Obstetrics): E. P. Davis. 3 p.m., University of Pennsylvania (Obstetrics): B. C. Hirst.

Wednesday, June 9. 10 a.m., St. Joseph's Hospital: E. E. Montgomery. 12 m., Jefferson Medical College: John C. Da Costa. 10 a.m., Jefferson Maternity (Obstetrics): E. P. Davis.

Thursday, June 10. 10 a.m., St. Agnes Hospital: W. H. Parish. 12 m., Polyclinic (Obstetrics): E. P. Davis. 1 p.m., Polyclinic: J. M. Baldy. 3 p.m., Jefferson Maternity (Obstetrics): E. P. Davis.

Friday, June 11. 10 a.m., Gynecean Hospital: J. M. Baldy. 1 p.m., Jefferson Hospital: E. E. Montgomery. 3 p.m., Lying-in Charity: G. M. Boyd, O. Hopkinson, W. R. Wilson.

Saturday, June 12. 9 a.m., Philadelphia Hospital: R. C. Norris. 10 a.m., Methodist Hospital: George E. Shoemaker. 1 p.m., University Hospital: C. B. Penrose. 3 p.m., University, (Obstetrics—ward visit): B. C. Hirst.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

The following list contains the hours and hospitals at which the visiting physicians interested in ophthalmology, otology and laryngology will find clinics and dispensary services, and where they may see the active work in these departments of medicine and surgery.

MONDAY, May 24.

Ophthalmology.—8 a.m., Gertrude A. Walker, Women's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., W. Sweet, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., Norris, Harlan, Risley, McClure, Oliver, Wills; 2 p.m., Mary Getty, Dispensary of Alumnæ of Women's Hospital, 1212 South 3rd Street; 3 p.m., Mary Getty, West Philadelphia Hospital for Women; 3 p.m., L. Ziegler, St. Joseph's; 3 p.m., A. G. Thomson, Children's; 4 p.m., T. B. Schneideman, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—8 a.m., Eleanor Adamson, Women's Hospital College; 1 p.m., B. A. Randall, University of Pennsylvania; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ralph Seiss, Polyclinic; 1 p.m., Kate W. Baldwin, Dispensary of the Alumnæ of the Women's Medical College; 2 p.m., A. H. Cleveland, Presbyterian; 3 p.m., S. MacCuen Smith, Jefferson.

Laryngology.—8 a.m., Eleanor Adamson, Women's Hospital; 11 a.m., E. L. Vansant, Polyclinic; 12 m., C. P. Grayson, University of Pennsylvania; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 1:30 p.m., W. Freeman, Children's; 2 p.m., A. Watson, Polyclinic; 4 p.m., G. M. Marshall, Philadelphia.

TUESDAY, May 25.

Ophthalmology.—8 a.m., Elizabeth Snyder, Women's Medical College; 9 a.m., Jackson, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., Chas. S. Turnbull, German; 1 p.m., L. W. Fox, Medico-Chirurgical; 1 p.m., Amy S. Barton, Women's Medical College; 2 p.m., Marie W. Haydon, Hospital and Dispensary of the Alumnæ of the Women's Medical College; 2 p.m., de Schweinitz or Veasey; Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., W. Thomson, Fisher, Berens, Jackson, Wills; 2 p.m., F. M. Perkins, Presbyterian; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., Harlan and Schwenk, Pennsylvania; 2 p.m., W. C. Posey, Howard; 2 p.m., G. O. Ring, Episcopal; 2 p.m., Gertrude A. Walker, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3rd St.; 3 p.m., L. F. Love, St. Mary's; 4 p.m., G. E. de Schweinitz, Polyclinic.

Otology.—8 a.m., Ida E. Gaston and Clara Dercum, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ada H. Audenried, Dispensary of Alumnæ of Women's Medical College; 2:30 p.m., B. A. Randall, Children's; 3 p.m., G. M. Marshall, St. Joseph's; 3 p.m., Randall, Children's.

Laryngology.—9 a.m., Ida E. Gaston, Clara Dercum, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 12 m., D. Braden Kyle, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 2 p.m., W. Hoch, Methodist; 2 p.m., D. B. Kyle, St. Agnes; 2 p.m., W. Freeman, Polyclinic; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p.m., G. Hudson Makuen, Polyclinic; 3 p.m., G. M. Marshall, St. Joseph's.

WEDNESDAY, May 26.

Ophthalmology.—8 a.m., G. A. Walker, Women's; 9 a.m., J. Thorington, Polyclinic; 12 m., W. Sweet, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 3 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Norris, Harlan, Risley, Oliver, McClure, Wills; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., Mary Getty, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3rd St.; 3 p.m., Mary Getty, West Philadelphia Hospital for Women; 4 p.m., T. B. Schneideman, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—8 a.m., Sarah F. Tyson, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 12 m., Randall, Polyclinic; 1 p.m., Randall or Brown, University; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ralph Seiss, Polyclinic; 2 p.m., A. H. Cleveland, Presbyterian.

Laryngology.—8 a.m., Sarah F. Tyson, Women's Medical College; 11 a.m., A. Watson, Howard; 11 a.m., E. L. Vansant, Polyclinic; 12 m., D. Braden Kyle, Jefferson; 12 m., C. P. Grayson, University of Pennsylvania; 12 m., A. H. Cleveland, Medico-Chirurgical; 1 p.m., Kate W. Baldwin, Dispensary of Alumnæ of Women's Medical College; 2 p.m., A. Watson, Polyclinic.

THURSDAY, May 27.

Ophthalmology.—8 a.m., E. Snyder, Women's; 9 a.m., J. Thorington, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p. m., L. W. Fox, Medico-Chirurgical; 2 p.m., G. E. de Schweinitz, Jefferson; 2 p.m., Norris or Mellor, University of

Pennsylvania; 2 p.m., Jackson, Thompson, Fisher, Berens, Wills; 2 p.m., F. M. Perkins, Presbyterian; 2 p.m., W. C. Posey; Howard; 2 p.m., P. N. K. Schwenk, Pennsylvania; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., Frances Janney, Dispensary of Alumnæ of Women's Hospital, 1212 South Third Street; 3 p.m., L. F. Love, St. Mary's; 4 p.m., S. D. Risley, Polyclinic.

Otology.—12 m., Charles H. Burnett, Women's Medical; 12 m., S. MacCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ada H. Audenried, Dispensary of Alumnæ of Women's Medical; 3 p.m., B. A. Randall, Children's.

Laryngology.—8 a.m., Eleanor Adamson, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 2 p.m., W. Hoch, Methodist; 2 p.m., D. B. Kyle, St. Agnes; 2 p.m., W. J. Freeman, Polyclinic; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p.m., G. Hudson Mahnen, Polyclinic.

FRIDAY, MAY 28.

Ophthalmology.—8 a.m., G. A. Walker, Women's; 9 a.m., E. Jackson, Polyclinic; 12 m., W. Sweet, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 1 p.m., C. S. Turnbull, German; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m, Risley, Harlan, Oliver, Norris, McClure, Wills; 2 p.m., G. O. Ring, Episcopal; 2 p.m., Gertrude A. Walker, Dispensary of Alumnæ of Women's Hospital, 1212 South Third Street; 3 p.m., Mary Getty, W. Philadelphia Hospital for Women; 3 p.m., L. W. Ziegler, St. Joseph's; 3 p.m., A. G. Thomson, Children's; 4 p. m., T. B. Schneideman, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—9 a.m., Musson, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 12 m., Randall, University of Pennsylvania; 1 p.m., Randall or Brown, University of Pennsylvania; 1 p.m., Ralph Seiss, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 2 p.m., A. H. Cleveland, Presbyterian.

Laryngology.—11 a.m., E. L. Vansant, Polyclinic; 12 m., D. B. Kyle, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 12 m., Emma E. Musson, Women's Medical College; 1 p.m., Kate W. Baldwin, Dispensary of Alumnæ of Women's Medical College; 1:30 p.m., W. Freeman, Children's; 2 p.m., A. Watson, Polyclinic; 3 p.m., Kyle and Jones alternating, Jefferson; 4 p.m., G. M. Marshall, Philadelphia.

SATURDAY, MAY 29.

Ophthalmology.—8 a.m., E. Snyder, Women's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m.. Mellor, University of Pennsylvania; 2 p.m., Thompson, Fisher, Jackson, Berens, Wills; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., Harlan and Schwenk, Pennsylvania; 2 p.m., F. Janney, Dispensary of Alumnæ of Women's Hospital 1212 South Third Street; W. C. Posey, Howard; 3 p.m., L. F. Love, St. Mary's; 4 p.m., G. E. de Schweinitz, Polyclinic.

Otology.—8 a.m., Sarah F. Tyson, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ada H. Audenreid, Dispensary of Alumnæ of Women's Medical College; 3 p.m., B. A. Randall, Children's; 3 p.m., G. M. Marshall, St. Joseph's.

Laryngology.—8 a.m., Sarah F. Tyson, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 11 a.m., A. Watson, Howard; 12 m., W. S. Jones, Jefferson; 12 m. A. H. Cleveland, Medico-Chirurgical; 12 m., D. B. Kyle, St. Agnes; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p.m., G. Hudson Mahnen, Polyclinic; 3 p.m., G. M. Marshall, St. Joseph's.

MONDAY, MAY 31.

Ophthalmology.—8 a.m., G. A. Walker, Woman's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., W. Sweet, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasy, Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., Norris, Harlan, Risley, McClure, Oliver, Wills; 2 p.m., M. Getty, Dispensary of Alumnæ of Women's Hospital, 1312 S. 3d Street; 3 p.m., M. Getty, West Philadelphia Hospital for Women; 3 p.m., L. Ziegler, St. Joseph's; 3 p.m., A. G. Thompson, Children's; 4 p.m., T. B. Schneidemann, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—8 a.m., Eleanor Adamson, Women's Medical College; 1 p.m., B. A. Randall, University of Pennsylvania; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ralph Seiss, Polyclinic; 2 p.m., A. H. Cleveland, Presbyterian; 3 p.m., S. MacCuen Smith, Jefferson.

Laryngology.—11 a.m., E. L. Vansant, Polyclinic; 12 m., C. P. Grayson, University of Pennsylvania; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 1 p.m., Kate W. Baldwin, Dispensary of the Alumnæ of the Women's Medical College; 1:30 p.m., W. Freeman, Children's; 2 p.m., A. Watson, Polyclinic; 4 p.m., G. M. Marshall, Philadelphia.

SATURDAY, JUNE 5.

Ophthalmology.—8 a.m., E. Snyder, Women's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., L. Webster Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Mellor, University of Pennsylvania; 2 p.m., Thompson, Fisher, Jackson, Berens, Wills; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., W. C. Posey, Howard; 2 p.m., Harlan and Schwenk, Pennsylvania; 2 p.m., F. Janney, Dispensary of Alumnæ Woman's Hospital, 1212 S. 3d Street; 3 p.m., L. F. Love, St. Mary's; 4 p.m., G. E. de Schweinitz, Polyclinic.

Otology.—8 p.m., Sarah F. Tyson, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ada H. Audenried, Dispensary of Alumnæ of Women's Medical College; 1 p.m., Brown, University of Pennsylvania; 3 p.m., B. A. Randall, Children's; 3 p.m., G. M. Marshall, St. Joseph's.

Laryngology.—8 a.m., Sarah F. Tyson, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 11 a.m., A. Watson, Howard; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 2 p.m., D. B. Kyle, St. Agnes; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p. m., Hudson MacCuen, Polyclinic; 3 p.m., G. M. Marshall, St. Joseph's.

MONDAY, JUNE 7.

Ophthalmology.—9 a.m., J. Thorington, Polyclinic; 9 a.m., G. A. Walker, Women's Medical College; 12 m., W. Sweet, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., Norris, Harlan, Risley, McClure, Oliver, Wills; 2 p.m., M. Getty, Dispensary of Alumnæ of Woman's Hospital; 3 p.m., M. Getty, West Philadelphia Hospital for Women; 3 p.m., L. Ziegler, St. Joseph's; 3 p.m., A. G. Thompson, Children's; 4 p.m., T. B. Schneidemann, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—8 a.m., Eleanor Adamson, Women's Medical College; 12 m., Ralph Seiss, Polyclinic; 1 p.m., B. A. Randall, University of Pennsylvania: 1 p.m., E. B. Gleason, Medico-Chirurgical; 2 p.m., A. H. Cleveland, Presbyterian; 3 p.m., S. MacCuen Smith, Jefferson.

Laryngology.—11 a.m., E. L. Vansant, Polyclinic; 12 m., C. P. Grayson, University of Pennsylvania; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 1 p.m., Kate W. Baldwin, Hospital and Dispensary of Alumnæ of the Woman's Medical College; 1:30 p.m., W. Freeman, Children's; 2 p.m., A. Watson, Polyclinic; 4 p.m., G. M. Marshall, Philadelphia.

TUESDAY, JUNE 8.

Ophthalmology.—8 a.m., E. Snyder, Women's Medical College; 9 a.m., Jackson, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., C. S. Turnbull, German; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Norris or Mellor, University of Pennsylvania; 2 p.m., Thompson, Fisher, Berens, Jackson, Wills; 2 p.m., F. M. Perkins, Presbyterian; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., Harlan and Schwenk, Pennsylvania; 2 p.m., Mary W. Hayden, Hospital of Alumnæ of Women's Medical College, 2 p.m., W. C. Posey, Howard; 2 p.m., G. O. Ring, Episcopal; 2 p.m., G. A. Walker, Dispensary of Alumnæ of Woman's Hospital; 3 p.m., L. F. Love, St. Mary's; 4 p.m., G. E. de Schweinitz, Polyclinic.

Otology.—12 m., Charles H. Burnett, Woman's Medical College; 12 m., S. McCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., Ada H. Andenried, Dispensary of Alumnæ of Woman's Medical College; 3 p.m., B. A. Randall, Children's; 3 p.m., G. M. Marshall, St. Joseph's.

Laryngology.—9 a.m., Ida E. Gasten and Clara Dercum, Woman's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 12 m., D. Braden Kyle, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 2 p.m., W. Hoch, Methodist; 2 p.m., D. B. Kyle, St. Agnes; 2 p.m., W. Freeman, Polyclinic; 2 p.m., A. W. McCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p.m., G. Hudson Makuen, Polyclinic; 3 p.m., G. M. Marshall, St. Joseph's.

WEDNESDAY, JUNE 9.

Ophthalmology.—8 a.m., Gertrude A. Walker, Woman's Medical College College; 9 a.m., J. Thorington, Polyclinic; 12 m., W. Sweet, Polyclinic; 12 m., Emma E. Musson, Woman's Medical College; 1 p.m., L. W. Fox, Medico Chirurgical; 2 p.m., de Schweinitz or Dr. Veasey, Jefferson; 2 p.m., Drs. Norris, Harlan, Risley, Cliver and McClure, Wills; 2 p.m., Dr. Norris or Dr. Mellor, University of Pennsylvania; 2 p.m., Mary Getty, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3d St.; 3 p.m., Mary Getty, West Philadelphia Hospital for Women; 4 p.m., T. B. Schneidemann, Polyclinic; 4 p.m., G. E. de Schweinitz, Philadelphia.

Otology.—8 a.m., Sarah F. Tyson, Women's Medical College; 12 m., S. McCuen Smith, Jefferson; 12 m., Dr. Randall, University of Pennsylvania; 1 p.m., Dr. Randall or Dr. Brown, University; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ralph Seiss, Polyclinic; 2 p.m., A. H. Cleveland, Presbyterian.

Laryngology.—8 a.m., Sarah F. Tyson, Women's Medical College; 11 a.m., A. Watson, Howard; 11 a.m., E. L. Vansant, Polyclinic; 12 m., D. Braden Kyle, Jefferson; 12 m., C. P. Grayson, University of Pennsylvania; 12 m., A. H. Cleveland, Medico-Chirurgical; 1 p.m., Kate W. Baldwin, Dispensary of Alumnæ Women's Medical College; 2 p.m., A. Watson, Polyclinic.

THURSDAY, JUNE 10.

Ophthalmology.—8 a.m., E. Snyder, Women's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., G. E. de Schweinitz, Jefferson; 2 p.m., Dr. Norris or Dr. Mellor, University of Pennsylvania; 2 p.m., Drs. Jackson, Thomson, Fisher and Berens, Wills; 2 p.m., F. M. Perkins, Presbyterian; 2 p.m., W. C. Posey, Howard; 2 p.m., P. N. K. Schwenk, Pennsylvania; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., Frances Janney, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3d St.; 3 p.m., L. F. Love, St. Mary's; 4 p.m., S. D. Risley, Polyclinic.

Otology.—12 m., Charles L. Burnett, Women's Medical College; 12 m., S. McCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 1 p.m., Ada N. Andenried, Dispensary of the Alumnæ of Women's Medical College; 3 p.m., B. A. Randall, Children's.

Laryngology.—8 a.m., Eleanor Adamson, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 12 m., W. S. Jones, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 2 p.m., W. Hoch, Methodist; 2 p.m., D. B. Kyle, St. Agnes; 2 p.m., W. J. Freeman, Polyclinic; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; 2 p.m., G. Hudson Makuen, Polyclinic.

FRIDAY, JUNE 11.

Ophthalmology.—8 a.m., G. A. Walker, Women's Medical College; 9 a.m., E. Jackson, Polyclinic; 12 m., W. Sweet, Polyclinic; 1 p.m., Amy L. Barton, Women's Medical College; 1 p.m., D. W. Fox, Medico-Chirurgical; 1 p.m., C. S. Turnbull, German; 2 p.m., Dr. de Schweinitz or Dr. Veasey, Jefferson; 2 p.m., Dr Norris or Dr. Mellor, University of Pennsylvania; 2 p.m., Drs. Risley, Harlan, Oliver, Norris, McClure, Wills; 2 p.m., G. O. Ring, Episcopal; 2 p.m., Gertrude A. Walker, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3d St.; 3 p.m., Mary Getty, West Philadelphia Hospital for Women; 3 p.m., L. W. Ziegler, St. Joseph; 3 p.m., A. G. Thomson, Children's; 4 p.m., T. B. Schneidemann, Polyclinic; 4 p.m., G. E. deSchweinitz, Philadelphia.

Otology.—8 a.m., Ida E. Gaston and Clara Dercum, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 1 p.m., Dr. Randall or Dr. Brown, University of Pennsylvania; 1 p.m., Ralph Seiss, Polyclinic; 1 p.m., Kate W. Baldwin, Dispensary of Alumnæ of Women's Medical College; 1 p.m., E. B. Gleason, Medico-Chirurgical; 2 p.m., A. H. Cleveland, Presbyterian.

Laryngology.—8. a.m., Ida E. Gasten and Clara Dercum, Women's Medical College; 11 a.m., E. L. Vansant, Polyclinic; 12 m., D. B. Kyle, Jefferson; 12 m., A. H. Cleveland, Medico-Chirurgical; 12 m., Emma E. Musson, Women's Medical College; 1:30 p.m., W. Freeman, Children's; 2 p.m., A. Watson, Polyclinic; 3 p.m., Kyle and Jones alternating, Jefferson; 4 p.m., G. M. Marshall, Philadelphia.

SATURDAY, JUNE 12.

Ophthalmology.—8 a.m., E. Snyder, Women's Medical College; 9 a.m., J. Thorington, Polyclinic; 12 m., H. F. Hansell, Polyclinic; 1 p.m., L. W. Fox, Medico-Chirurgical; 2 p.m., de Schweinitz or Veasey, Jefferson; 2 p.m., Mellor, University of Pennsylvania; 2 p.m., Thomson, Fisher, Jackson, Berens, Wills; 2 p.m., E. H. Rehfuss, St. Agnes; 2 p.m., W. C. Posey, Howard; 2 p.m., Harlan and Schwenk, Pennsylvania; 2 p.m., F. Janney, Dispensary of Alumnæ of Women's Hospital, 1212 S. 3rd St.; 3 p.m., L. F. Love, St. Mary's; 4 p.m., G. E. de Schweinitz, Polyclinic.

Otology.—8 a.m., Sarah F. Tyson, Women's Medical College; 12 m., S. MacCuen Smith, Jefferson; 12:30 p.m., J. M. Brown, University of Pennsylvania; 1 p.m., B. A. Randall, Polyclinic; 1 p.m., E. B. Gleason, Medico-Chirurgical; 3 p.m., B. A. Randall, Children's; 3 p.m., G. M. Marshall, St. Joseph's.

Laryngology.—8 a.m., Sarah F. Tyson, Women's Medical College; 11 a.m., J. S. Gibb, Polyclinic; 11 a.m., A. Watson, Howard; 12 m., W. S. Jones, Jefferson; 12m., A. H. Cleveland, Medico-Chirurgical; 12 m.. D. B. Kyle, St. Agnes; 1 p.m., Ada H. Andenried, Dispensary of Alumnæ of Women's Medical College; 2 p.m., A. W. MacCoy, Pennsylvania; 2 p.m., L. P. Smock, St. Agnes; G. Hudson Makuen, Polyclinic; 3 p.m., G. M. Marshall, St. Joseph's.

GENITO-URINARY DISEASES.

The following Out-patient Departments are open daily for the treatment of ambulant cases suffering from genito-urinary diseases:

12 m., University of Pennsylvania, Henry M. Christian.
12 m., Medico-Chirurgical College, W. Newbold Watson.
12 m., Jefferson Medical College, H. R. Loux.
12 m., Methodist (Mondays, Wednesdays, Fridays), D. E. Kucher.
4 p.m., Polyclinic, T. R. Neilson and H. M. Christian.
7:30 p.m., Mondays, Wednesdays and Fridays, demonstrations in cystoscopy and vesical explorations, Edward Martin and James Hutchinson.

Clinical lectures and ward demonstrations by John V. Shoemaker at the Medico-Chirurgical College, Orville Horwitz at the Jefferson College, H. M. Christian and T. R. Neilson at the Polyclinic, and Edward Martin at the University, are scheduled in the college courses.

PEDIATRICS.

The following Out-patient Departments will be open for the study of children's diseases:

8 a.m., Woman's Hospital, Kate Baldwin, E. C. Jones, Margaret Butler.
11 a.m., Medico-Chirurgical, Alexander Ramsey.
12 m., Jefferson, H. M. Shriver.
12 m., University, W. H. Price.
10 a.m., Polyclinic, J. M. Taylor and J. H. McKee.
3 p.m., Hospital and Dispensary of the Alumnæ of the Woman's Medical College, Eleanor Jones, Clara Revell, Emma Weeks.
11 a.m., Children's Hospital.
3 p.m., Children's Hospital, J. P. Crozer Griffith.

Clinical lectures on children's diseases by J. P. Crozer Griffith at the University, E. E. Graham at the Jefferson, W. C. Hollopeter at the Medico-Chirurgical, Edward P. Davis at the Woman's Medical, and J. W. Taylor at the Polyclinic, are scheduled in the college courses.

DERMATOLOGY.

The following Out-patient Departments will be open for the study of skin diseases at the hours named:

12 m., Howard Hospital, Henry W. Stelwagon and C. N. Davis.
12 m., Jefferson, E. J. Stout.
1 p.m., University, M. B. Hartzell and C. N. Davis.
11 a.m., Medico-Chirurgical, E. S. Gans.
11 a.m., Fred Douglas Memorial Hospital (Mondays and Fridays), J. A. Cantree.
10 a.m., St. Agnes' (Mondays, Wednesdays and Fridays), C. S. Mears.
12 m., Polyclinic, J. A. Cantrell.

Clinical lectures on dermatology by Louis A. Duhring at the University, H. W. Stelwagon at the Jefferson, J. V. Shoemaker at the Medico-Chirurgical and J. A. Cantrell at the Polyclinc are scheduled in the college courses.

Dr. Cantrell will have ward demonstrations at the Philadelphia Hospata l on Mondays, Wednesdays and Fridays, at 3:30 p.m.

Intestinal Pneumatoma.—Orland describes a case of occlusion and fatal peritonitis caused by the formation of several walnut-sized, gas-filled tumors near the ileo-cecal valve. The protruding mucous membrane subsided to the level after puncture and the escape of the gas, with no evidences of degeneration. Bacilli obtained from the wall of the tumors proved virulent in experiments, but developed no gas. He ascribes their action in the case to alterations in the tissues that transformed them from saprophytes to gas-forming agents.—*Cbl. f. Chir.*, April 3.

ASSOCIATION NEWS.

The Philadelphia Meeting of the American Medical Association.

It may interest the members of the ASSOCIATION to know of the very great interest which is being taken in the coming meeting by physicians in all portions of the United States. Every mail brings to me a large number of letters in which the writers promise to be present at the meeting and express great enthusiasm as to the possibilities which it offers to themselves and to the ASSOCIATION itself. Already we have been informed of three special trains from various portions of the West which will bring a large number of delegates to the hospitable doors of Philadelphia, and arrangements are already so far completed that the ASSOCIATION might meet here within a week and find everything in readiness for its complete entertainment both scientifically and socially.

You have already received from the hands of Dr. Martin, the Chairman of the Committee on Hospital Demonstrations, a complete and exhaustive roster[1] which informs visitors of the possibilities offered them for clinical observation in the large teaching institutions and hospitals of Philadelphia. It is believed that this course has been arranged in such a way as to provide visiting physicians with the largest possible amount of practical information which can be obtained either by the bedside or in laboratory work within the short period of a few days or weeks. It will be noted that in this roster hospital and other facilities are offered to visitors for the week before and the week following the meeting. To those physicians who desire to stay longer I may announce that special spring and summer courses have been arranged by those in charge of the laboratories connected with Jefferson Medical College Hospital and the Pepper Laboratory of the University of Pennsylvania, so that those who desire to remain over a period longer than that covered by the roster prepared by Dr. Martin's committee can continue such courses of instruction as they desire. All these courses have been arranged, as I have said, in such a way as to present to the physician the practical advantages he would naturally seek as aids in his daily work.

The appended information in regard to the various meeting places will also, I think, be read with interest by those who have any knowledge of the situation of the various meeting places. To those who do not know them, as has already been stated in the editorial in the JOURNAL of April 24, these meeting places are included in one entire block on both sides of Broad Street and are within a stone's throw of all the large hotels.

PLACES OF MEETING.

The general meetings will be held in the main auditorium of the Academy of Music, Broad and Locust Streets.

Headquarters, Hotel Walton, Broad and Spruce Streets.

Registration Office will be in the lower corridor of Horticultural Hall, Broad Street below Locust.

Postoffice will be in the outer vestibule of Horticultural Hall.

SECTIONS.

The Section on Practice of Medicine will meet in the Broad Street Theater.

The Section on Surgery and Anatomy will meet in the lower hall of Horticultural Hall.

The Section on Obstetrics and Diseases of Women will meet in the main auditorium of Beth-Eden church, Corner of Broad and Spruce Streets.

The Section on Neurology and Medical Jurisprudence will meet in the upper room of Beth-Eden church, entrance on Spruce Street.

The Section on Laryngology and Otology will meet in the central room, tenth floor, Hotel Walton.

The Section on Materia Medica and Pharmacy will meet in the Blue Room of the Academy of Music.

The Section on Diseases of Children will meet in the foyer of the Academy of Music.

[1] See page 886 et seq.

The Section on State Medicine will meet in the Red Room of the Academy of Music.

The Section on Dermatology and Syphilography will meet in the foyer of Horticultural Hall.

The Section on Physiology and Dietetics will meet in the banquet hall of the Hotel Stenton, Broad and Spruce Streets.

The Section on Dental and Oral Surgery will meet in Parlor D, Hotel Walton.

COMMITTEE ROOMS.

The Executive or Business Committee will meet in Parlor C, Hotel Walton.

The Judicial Council will meet in the Lower Ladies' Parlor of the Academy of Music.

The Trustees will meet in the Upper Ladies' Parlor of the Academy of Music.

The Nominating Committee will meet in the Green Room of the Academy of Music.

It is hoped by the officers of the ASSOCIATION and by the members of the Committee of Arrangements that every member of the ASSOCIATION will not only make an effort to be present, but that he will if detained send a substitute and urge all his medical friends to accompany him to this meeting, which promises to be the most successful one in our history.

In order to facilitate the business of the meeting I append a list of the chairmen of the various sub-committees to whom gentlemen wishing information in regard to matters falling within their jurisdiction should write direct.

Committee on Ways and Means, including Transportation.—Dr. E. E. Montgomery, 1715 Walnut Street.

Committee on Exhibition.—Dr. Edward Jackson, 1633 Locust Street.

Committee on Reception and Accommodation.—Dr. G. E. de Schweinitz, 1401 Locust Street.

Committee on Registration. — Dr. John Marshall, 1409 Spruce Street.

Committee on Entertainment.—Dr. L. Webster Fox, 1304 Walnut Street.

Committee on Hospital Facilities.—Dr. Edward Martin, 415 South Fifteenth Street.

Committee on Anniversary Exercises.—Dr. John B. Roberts, 1627 Walnut Street.

Committee on General Information.—Dr. H. A. Hare, 222 S. 15th Street.

Committee on Section Dinners.—Dr. Edward Jackson, 1633 Locust Street.

If the readers of the JOURNAL will remember that by a little individual effort they can persuade a friend or friends to add his or their names to the membership of the ASSOCIATION and thereby greatly increase its usefulness they will confer a lasting benefit upon our organization. Yours truly,

H. A. HARE, M.D.,

Chairman of the Committee of Arrangements.

Section on Laryngology and Otology.—Program.

TUESDAY, JUNE 1ST—AFTERNOON SESSION.

1. Address of Chairman. W. E. Casselberry, Chicago, Ill.
2. The So-called Bleeding Polyp of the Septum. Norval H. Pierce, Chicago, Ill.
3. Some Notes Concerning the Influence of Sexual Excitement upon Intra nasal Disease. Charles P. Grayson, Philadelphia, Pa.
4. Nasal and Laryngeal Affections Traceable to Diseases of the Genital Organs. A. B. Kirkpatrick, Philadelphia, Pa.
5. Two Cases of Asthma due to Intra-nasal Obstruction. Wilbur W. Bulette, Pueblo, Colo.
6. Something on the Amusing Side of Nasal Reflexes. Arthur G. Hobbs, Atlanta, Ga.
7. Spasmodic Closure of the Glottis in an Adult. Hamilton Stillson, Seattle, Wash.
8. Salivary Calculi. W. Freudenthal, New York, N. Y.
9. An Unusual Case of Blood-Cyst of the Posterior Nares. John N. Mackenzie, Baltimore, Md.
10. A Clinical and Experimental Study of Atrophic Disease of the Upper Air Passages. J. L. Goodale, Boston, Mass.
11. Some Remarks on Cases of Atrophic Naso pharyngitis. Edward F. Parker, Charleston, S. C.
12. Treatment of Acute Rhinitis. A. R. Solenberger, Chicago, Ill.
13. The Treatment of Chronic Catarrhal Diseases of the Throat in General Practice. J. M. G. Carter, Waukegan, Ill.
14. Fluoroscopy in Certain Forms of the Diseases of the Throat, Nose, Lungs, etc. J. Mount Bleyer, New York, N. Y.
15. Non-specific Perforation of the Nasal Septum, with Report of Cases. J. R. Straw, Ashland, Wis.

16. Practical vs. Theoretical Tonsillotomy. J. Homer Coulter, Chicago, Ill.

WEDNESDAY, JUNE 2D—MORNING SESSION.

17. A Case of Chronic Abscess of the Base of the Tongue. C. W. Richardson, Washington, D. C.

18. A Case of Polypus involving the Antrum of Highmore. A. E. Prince, Springfield, Ill.

19. A Case of Recurrent Headaches which Continued until Relieved by the Spontaneous Discharge of a Watery Fluid from the Nostrils; the Successive Opening of the Frontal and Maxillary Sinuses and Ethmoidal Cells without Relief of the Recurrent Headaches. W. Scheppegrell, New Orleans, La.

20. Suppurative Ethmoiditis. Robert W. Haynes, Los Angeles, Cal.

21. Studies of the Nasal Fossa and Maxillary Sinus, with their relations. M. H. Cryer, Philadelphia, Pa.

22. Discussion—The Treatment of Empyema of the Frontal Sinus. Opened by J. H. Bryan, Washington, D. C.

23. A Contribution to the Surgery of the Accessory Cavities of the Nose. Max Thorner, Cincinnati, Ohio.

24. Meniere's Disease, with Report of a Case. James M. Brown and Judson Daland, Philadelphia, Pa.

25. Diseases of the Conjunctiva in Relation to Diseases of the Nasal Passages. Robert N. Keely, Philadelphia, Pa.

Discussion opened by J. F. Fulton, St. Paul, Minn.

26. Irruption of Teeth into the Antral Cavities. Alexander W. MacCoy, Philadelphia, Pa.

27. Exhibition of Anatomic Sections of the Ear and Accessory Nasal Cavities. C. R. Holmes, Cincinnati, Ohio.

WEDNESDAY, JUNE 2D—AFTERNOON SESSION.

28. Report of Two Cases of Abscess of the Mastoid Region. J. H. Bryan, Washington, D. C.

29. Mastoid Empyema without Objective Symptoms, with Presentation of Patients. S. MacCuen Smith, Philadelphia, Pa.

30. An Historical Sketch of the Operation of Opening the Mastoid for Suppurative Middle Ear Disease. Laurence Turnbull, Philadelphia, Pa.

Discussion opened by D. B. St. John Roosa, New York, N. Y.

31. Phenomena Observed in Twelve Cases at various stages of the Operation of Tenotomy of the Stapedius and Section of the Incudo-stapedial Articulation in Chronic Catarrh of the Middle Ear; Improvement in the Hearing for Low Tones following Wolfe's Operation; Exhibition of Case. E. B. Gleason, Philadelphia, Pa.

32. The Clinical History of Three Cases of Otitis Media Presenting Serious Constitutional Symptoms, with Special Reference to the Vital Indications for Mastoid Operation. Hiram Woods, Baltimore, Md.

33. Caries and Necrosis of the Roof of the External Auditory Canal. Seth Scott Bishop, Chicago, Ill.

Discussion opened by Walter J. Freeman, Philadelphia, Pa.

34. A Case of Rhino-pharyngeal Fibroma, with Projections Extending Through the Two Nasal Cavities to the Anterior Nares. Hanau W. Loeb, St. Louis, Mo.

Discussion opened by E. F. Ingals, Chicago, Ill.

35. Contribution to Our Knowledge of the Diseases of the Naso pharynx. Emma E. Munson, Philadelphia, Pa.

36. Question Regarding the Etiology of Adenoid Vegetations, as Found in the Naso-pharynx, with Suggestions as to Treatment. Also a Serrated Curette-syringe, New, for the Purpose of Freeing the Vault of Detritus after Operation. M. C. O'Toole, San Francisco, Cal.

37. Adenoids in the Naso-pharynx, with Operative Treatment of the Same. W. M. Roads, Cincinnati, Ohio.

THURSDAY, JUNE 3D—MORNING SESSION.

38. General and Local Anesthesia in Rhinology and Laryngology. Joseph S. Gibb, Philadelphia, Pa.

39. Tonsil and Adenoid Operations under Anesthesia by Nitrous Oxid, and Nitrous Oxid with Hydrogen; a Preliminary Report. W. E. Casselberry and F. Menge, Chicago, Ill. (Paper prepared and read by Dr. Menge.)

Discussion opened by J. O. Roe, Rochester, N. Y.

40. Cocain and Eucain: A Comparison. T. H. Shastid, Galesburg, Ill.

41. Cocain, Its Uses and Abuses in Laryngology. Ledru P. Smock, Philadelphia, Pa.

42. Certain Conditions of the Tonsils which Limit the Usefulness of the Tonsillotome. Arthur A. Bliss, Philadelphia, Pa.

Discussion opened by Charles H. Knight, New York, N. Y.

43. Fracture of the Nasal Bones. Frederick C. Cobb, Boston, Mass.

44. The Treatment of Chronic Inflammation of the Tonsils. J. A. Ellegood, Wilmington, Del.

45. Peritonsillitis, Its Etiology and Treatment. Kate W. Baldwin, Philadelphia, Pa.

46. Contribution to the Study of Prophylaxis in Diphtheria of the Upper Respiratory Tractus. Henry L. Wagner, San Francisco, Cal.

47. Municipal Control of Diphtheria. W. K. Jaques, Chicago, Ill.

THURSDAY, JUNE 3D—AFTERNOON SESSION.

48. Three Obscure Cases of Laryngeal Disease: Tuberculosis—Syphilis—Epithelioma. Charles H. Knight, New York, N. Y.

49. Malignant Growths of the Larynx, with Report of Cases. Presentation of a Specimen from a Case of Fatal Extirpation. Robert C. Myles, New York, N. Y.

Discussion opened by J. Solis-Cohen, Philadelphia, Pa.

50. Some Defects of Speech: Their Cause and Treatment with Exhibition of Cases. G. Hudson Makuen, Philadelphia Pa.

51. Esophagotomy for the Removal of a Tooth Plate Impacted Five Days in the Upper Third of the Esophagus. John O. Roe, Rochester, N. Y.

52. Stenosis of the Larynx. W. S. Jones, Camden, N. J.

53. A Case of Bilateral Gummata with Dangerous Stenosis of Larynx. S. K. Merrick, Baltimore, Md.

54. Tubercular Laryngitis. Ellet Orrin Sisson, Keokuk, Iowa.

55. Tuberculous Tumor of the Larynx. Louis Jurist, Philadelphia, Pa.

56. Sand Burrs in the Larynx. D. Emmett Welsh, Grand Rapids, Mich.

FRIDAY, JUNE 4TH—MORNING SESSION.

57. Otitic Pachymeningitis Externa. Joseph A. Andrews, New York, N. Y.

58. Acute Myringitis. Ralph W. Seiss, Philadelphia, Pa.

59. The Treatment of Tinnitus Aurium. G. Sterling Ryerson, Toronto, Ont.

60. Discussion: Tinnitus in its Relation to Nasal and Aural Affections. Opened by B. Alexander Randall, Philadelphia, Pa.

61. The Treatment of Acute Otitis Media—Acute Earache. J. Hubert Claiborne, New York, N. Y.

62. Acute and Chronic Caries of the Mastoid; Pachymeningitis Externa: Epidural Abscess; Circumscribed Leptomeningitis. Herman Knapp, New York, N. Y.

63. What can be Accomplished by Treatment of the Eustachian Tube. George Morley Marshall, Philadelphia, Pa.

64. Natural Gas and Acute Inflammation of the Eustachian Tube. John Johnson Kyle, Marion, Ind.

65. Eustachian Deafness. A. J. Erwin, Mansfield, Ohio.

66. A Novel Method of the Use of Dry Heat in Middle Ear Diseases, Otalgia, etc. E. L. Vansant, Philadelphia, Pa.

67. Non-surgical Diseases of the Ear. E. L. Klopp, Philadelphia, Pa.

68. Surgical Treatment of Acute Inflammations of the Middle Ear. E. B. Dench, New York, N. Y.

FRIDAY, JUNE 4TH—AFTERNOON SESSION.

69. Larvæ Complicating Middle Ear Disease, Minneapolis, Minn.

70. The Double Current Eustachian Canula in the Treatment of Middle Ear Catarrh. James E. Willitts, Pittsburg, Pa.

71. Intra-tympanic Surgical Treatment of Chronic Purulent Otorrhea. C. H. Burnett, Philadelphia, Pa.

72. Ossiculotomy in Chronic Otitis Media. G. A. Stucky, Lexington, Ky.

73. The Venous Channels of the Aural Region; Illustrated with Stereopticon. B. Alexander Randall, Philadelphia, Pa.

Discussion opened by W. E. Casselberry, Chicago, Ill.

74. Catheterization of the Eustachian Tubes through the Mouth. D. Braden Kyle and W. H. King, Philadelphia, Pa. (Paper read by W. H. King.)

75. The Relation Existing between Bright's Disease and Certain Ear Symptoms. Francis Dowling, Cincinnati, Ohio.

76. Some Further Results in Treating Ears by Massage Methods. Louis J. Lautenbach, Philadelphia, Pa.

Section on Diseases of Children.—Program:

TUESDAY, JUNE 1ST—AFTERNOON SESSION.

1. Address of Chairman. J. A. Larrabee, Louisville, Ky.

2. The Physiologic Treatment of Diphtheria. Elmer Lee, Chicago, Ill.

3. The Antiseptic versus the Antitoxic Treatment of Diphtheria. C. W. Braymer, Camden, N. J.

4. The Successful Treatment of Diphtheria as Compared with Antitoxin; Exhibition of a Croup Kettle. John H. Coughlin, New York, N. Y.

5. The Past and Present Status of our Knowledge of the

Etiology, Pathology and Treatment of Diphtheria; What we have Accomplished. C. G. Slagle, Minneapolis, Minn.

6. The Serum Therapy of Diphtheria, an Answer to Dr. Lee. Prof. Edwin Klebs, Chicago, Ill.

7. The Specific Use of Diphtheria Antitoxin in Laryngeal Diphtheria. Edwin Rosenthal, Philadelphia, Pa.

8. The Therapeutics of Diphtheria with Special Reference to Antitoxin. W. W. Gray, Bridgeport, Conn. Discussion opened by Frederick A. Packard, Philadelphia, Pa., S. G. Dabney, Louisville, Ky.

Section Dinner on the Evening of the First Day.

WEDNESDAY, JUNE 2D—MORNING SESSION.

9. Intubation. T. C. Evans, Louisville, Ky.

10. The Technique of Extubation. Robert H. M. Dawbarn, New York, N. Y. Discussion opened by Floyd M. Crandall, New York, N. Y.

11. Tests to be Applied to Every Case of so-called Maternal Impressions. Marcus P. Hatfield, Chicago, Ill. Discussion opened by S. W. Kelly, Cleveland, Ohio.

12. Some Causes of Congenital Deformities. Ella E. Barnes, Birmingham, Ala. Discussion opened by Bedford Brown, Alexandria, Va.

13. Tubercular Meningitis. Annie S. Daniel, New York, N. Y.

14. Meningitis a Complication of Measles. Thomas W. Harvey, Orange, N. J.

15. The Clinical Importance of the Eye Symptoms in Arriving at a Diagnosis of Meningitis in Children, with Cases. A. E. Davis, New York, N. Y. Discussion opened by Harold N. Moyer, Chicago, Ill.

16. Hysterical Contractures in Children. Chas. W. Burr, Philadelphia. Pa.

WEDNESDAY, JUNE 2D—AFTERNOON SESSION.

17. Some Fundamental Principles to be Observed in Infant Feeding. L. Emmet Holt, New York, N. Y.

18. The Use of Artificial Foods Largely a Fashion, not a Necessity in Country Practice. W. A. Dixon, Ripley, Ohio.

19. Infant Feeding with Reference to Examination of the Feces. Louis Fischer, New York, N. Y.

20. Condensed Milk as a Food for Infants, its Uses and Limitations. Chas. G. Kerley, New York, N. Y. Discussion opened by J. P. Crozer Griffith, Philadelphia, Pa.

21. The Relation of the Liver to Digestive Diseases of Children. J. M. G. Carter, Waukegan, Ill.

22. Typhoid Fever in Infancy and Childhood. Henry A. Fairbairn, Brooklyn, N. Y.

23. Cases Illustrating Typhoid Fever in Children. J. P. Crozer Griffith, Philadelphia, Pa. Discussion opened by William P. Northrup, New York, N. Y.

24. Some Points in the Treatment of Wasting Diseases of Children. J. P. Cooke, New York, N. Y.

25. How Best to Care for Syphilitic Children. C. Travis Drennen, Hot Springs, Ark.

THURSDAY, JUNE 3D—MORNING SESSION.

26. The Study of the Etiologic Factors of Difficult Defecation in Children and Mechanical Means for its Relief. Thos. Chas. Martin, Cleveland, Ohio.

27. Infantile Constipation. J. W. Byers, Charlotte, N. C. Discussion opened by Floyd M. Crandall, New York, N. Y.

28. The Treatment of Rickets and Rickety Deformities. John Ridlon, Chicago, Ill.

29. The Ambulatory Treatment of Fractures of the Leg in Children. James P. Fiske, New York, N. Y.

30. Van Arsdale's Triangular Splint for Fractures of the Femur in Children, with Remarks on the Use of Cardboard as Splint Material. A. Ernest Gallant, New York, N. Y. Discussion opened by John Woodbury, New York, N. Y.

31. The Treatment of Hernia in Infancy and Childhood. William B. Coley, New York, N. Y. Discussion opened by William L. Rodman, Louisville, Ky.

32. The Operative Relief of Intussusception. C. L. Gibson, New York, N. Y. Discussion opened by Robert H. M. Dawbarn, New York, N. Y.

33. New Methods of Resuscitating Still Born and Feeble Born Children. Bedford Brown, Alexandria, Va.

THURSDAY, JUNE 3D—AFTERNOON SESSION.

34. The Influence of Our Present School System on the Health and Development of the Child. E. Stuver, Rawlins, Wyoming. Discussion opened from the Standpoint of the Physician by Harriet E. Garrison, Dixon, Ill.; and from the Standpoint of the Surgeon by Prof. J. Henry Bartlett, Philadelphia, Pa.

35. The Training and Home Life of Neurotic Children. Ella M. Patton, Quincy, Ill.

36. The Early Recognition and Treatment of Defective Development of Children. Louis F. Bishop, New York, N. Y.

37. Infant Bathing. A. Campbell White, New York, N. Y.

38. Malignant Scarlet Fever. L. S. Baker, Erie, Pa.

39. The Belladonna Treatment of Pertussis. Harriet E. Garrison, Dixon, Ill. Discussion opened by Chas G. Kerley, New York, N. Y.

40. The Signs and Symptoms of Enlarged Bronchial Glands of Children. Frederick A. Packard, Philadelphia, Pa.

41. Abnormal Respiration in Infants from Obstruction in the Upper Air Passages. Jas. J. Concannon, New York, N. Y.

42. Ventilation as a Prophylactic and Curative Measure. A. J. Work, Elkhart, Ind.

FRIDAY, JUNE 4TH—MORNING SESSION.

43. The Prevention of Tuberculosis in the Predisposed by Appropriate Treatment in Childhood and Youth. John A. Robison, Chicago, Ill.

44. The Management of Children with Inherited Tubercular Diathesis. Jos. Wm. Stickler, Orange, N. J. Discussion opened by Paul Paquin, St. Louis, Mo.

45. Skin Granulomata in Children. Jas. S. Johnston, New York, N. Y.

46. Noma. Thomas Darlington, Kingsbridge, N. Y.

47. The Bullous Eruptions in Infancy and Childhood. C. W. Allen, New York, N. Y. Discussion opened by L. Duncan Bulkley, New York, N. Y., I. N. Bloom, Louisville, Ky.

48. A Plea for the More Common Sense Treatment of Sick Children. A. H. P. Leuf, Philadelphia, Pa.

49. Teething, Its Pathology and Treatment. G. M. Blech, Louisville, Ky.

50. Seed Sown in Childhood and the Harvest Therefrom. Florus F. Lawrence, Columbus, Ohio.

51. The Care of the Baby's Eyes in the Perambulator. Mary E. Baldwin, Newport, R. I.

Section on Physiology and Dietetics.—Program:

1. Address of the Chairman. Augustus P. Clarke, Cambridge, Mass.

2. Diet as a Remedy in Disease. Charles H. Shepard, Brooklyn, N. Y.

3. The Value of Therapeutic Fasting in the Treatment of Acute Fevers. Elmer Lee, Chicago, Ill.

4. Problems in Feeding School Children. Horace P. Makeclune, Somerville, Mass.

5. What are the Characteristics of a True Cardiac Tonic, and what the Physiologic Differences between a Tonic and a Stimulant? N. S. Davis, Chicago, Ill.

6. Diet in Diseases of the Stomach. J. M. G. Carter, Waukegan, Ill.

7. Diet in Diseases of Mexico. Frederick Semeleder, Cordova, Mexico.

8. The Physiologic Combustion of the Animal Oils. J. Wellington Byers, Charlotte, N. C.

9. Some Points in the Physiology and the Congenital Criminal. James Wier, Jr., Owensboro, Ky.

10. The Mechanism of the Activity of Glands. G. Walter Barr, Quincy, Ill.

11. Dietetics—The Pathology and Therapeutics in Diseases of the Stomach. Fenton B. Turck, Chicago, Ill.

12. The Physical Development of Woman. Harriet E. Garrison, Dixon, Ill.

13. Feeding of Surgical Patients. Albert H. Tuttle, Cambridge, Mass.

14. Artificial Respiration in Relation to Physiologic Principles. Edward D. McDaniel, Mobile, Ala.

15. Increasing Consumption of Acidulous Foods and Drinks. Wm. T. English, Pittsburg, Pa.

16. The Relation of Food, Air and Exercise to Healthy Growths and Development. E. Stuver, Rawlins, Wyo.

17. Recent Advances in Mental Physiology. E. P. Hurd, Newburyport, Mass.

18. Physiology of the Sigmoid Flexure of the Colon and Rectum. J. G. Carpenter, Stanford, Ky.

19. The Psychology and Physiology of Hypnotism. Randell Hunt, Shreveport, La.

20. Intestinal Tuberculosis Due to Certain Articles of Food. R. J. Nunn, Savannah, Ga.

21. Pulmonary Tuberculosis with Special Reference to Diet. H. W. Mitchell, New York, N.Y.

22. Alcoholic Beverages. S. S. Herrick, San Francisco, Cal.

23. A Few Remarks on the Diet and General Care of Consumptives in Southern California. Geo. L. Cole, Los Angeles, Cal.

24. Diet of the Insane. Hugh Hagan, Atlanta, Ga.

25. Maranta Arundinacea: its Medical Properties and Dietetic Uses. A. Thomas Cuzner, Gilmore, Florida.

26. The Therapy of Tuberculosis and the Diet for Acute Diseases. John Ashburton Cutter, New York, N.Y.
27. The Hygiene and Dietetics of Chronic Nephritis. Asa F. Pattee, Boston, Mass.
28. Monologue on the Voice of a Larynxless Man. J. Solis-Cohen, Philadelphia, Pa.
29. The Metabolism in the Human Organism and the Potential Energy of Food. W. W. Grube, Toledo, Ohio.
30. Comparison of the Anatomy and Functions of the Cerebrum and the Cerebellum. William Fuller, Grand Rapids, Mich.
31. Hair-Cells of the Crista Acustica on the Ampullæ of Aural Areas (Illustrated). B. Alexander Randall, Philadelphia, Pa.
32. Some Important Features in Dietetics: The Effect of Heat on Food; the Uses of Atmospheric Nitrogen; the Ferments in the Human Organism; the Morphologic Development of Cells in Effete Products (Illustrated). Ephraim Cutter, New York, N. Y.
33. Dietetic Treatment for Fatty Degeneration. William F. Holcombe, New York, N. Y.
34. Physiology of the Live Human Heart in Situ Naturali. Alex. Hugh Ferguson, Chicago, Ill.
35. A Neglected Factor in the Economy of Digestion. H. S. Drayton, New York, N. Y.
36. Diet in the Chronic Catarrh of the Gastro-intestinal Tract. Boardman Reed, Philadelphia, Pa.
37. Food and the Agencies of Digestion. Robert W. Hastings, Brookline, Mass.

Section on State Medicine.—Program:

TUESDAY, JUNE 1.

1. Chairman's Address—History of the Section on State Medicine. Elmer Lee, Chicago, Ill.
2. The Abuse of Medical Charities. Landon Carter Gray, New York, N. Y.
3. Flannels and Personal Sanitation—Sweltering and Smothering the Skin contrary to the Nature of the Animal Organism, and therefore Inimical to Health. Charles E. Page, Boston, Mass.
4. The Present Medical Science Education not in Harmony with the Nature of Things. W. H. Dunham, Keene, N. H.
5. Rest. C. F. Ulrich, Wheeling, W. Va.
6. The Progress of the Individual Cup Movement. H. S. Anders, Philadelphia.
7. A National Medical School. Albert Ashmead, New York, N. Y.
8. A Plea for Less Hobby-riding and More Science in State Medicine. Eugene C. Bardwell, Emporium, Pa.
9. The Germ Theory Disproved. Thomas Powell, Los Angeles, Cal.
10. The Physical and Hygienic Care of Children. Randolph Faries, Philadelphia, Pa.
11. Air, its Use and Abuse. James Cokenower, Des Moines, Iowa.

WEDNESDAY, JUNE 2.

12. Quarantine in the United States. Walter Wyman, Washington, D. C.
13. The Advantages of Castration in the Defective. Everett Flood, Baldwinville, Mass.
14. Some Features Respecting the Drainage of Larger Municipalities. Augustus P. Clarke, Cambridge, Mass.
15. Credulity and Skepticism in Medicine. W. G. McFadden, Shelbyville, Ind.
16. Turkish Baths in Hydrophobia. Charles H. Shepard, Brooklyn, N. Y.
17. State Medicine to the Present Time. Franklin Staples, Winona, Minn.
18. More Physicians and Fewer Lawyers in Congress. Ephraim Cutter, New York, N. Y.
19. Some Considerations of the Import of the Occurrence of Pathogenic Spirilla in the Water of the Delaware and Schuylkill Rivers at Philadelphia. D. H. Bergley, Philadelphia, Pa.
20. The Successful Treatment of Snake Bite. J. G. Tuten, Jessup, Ga.
21. The Frequency of Apoplexy among the Higher Classes with Recommendations for Prevention of the Condition and Escape from Fatality. Elmer Lee, Chicago, Ill.
22. An Alcove Dormitory for the Epileptic. Everett Flood, Baldwinville, Mass.
23. Relation of Railway Companies to State Boards of Health. G. P. Conn, Concord, N. H.

THURSDAY, JUNE 3.

24. Tuberculosis Prophylaxis. Ralcy H. Bell, Atlanta, Ga.
25. A Study of the Blood in Tuberculosis. A. M. Holmes, Denver, Colorado.
26. Bovine Tuberculosis and its Relations to Public Health, with suggestions for Prevention of Transmission—Specimens. Howard Carter, St. Louis, Mo.
27. On the Principles of Prophylaxis for Limiting the Prevalence of Pulmonary Tuberculosis. N. S. Davis, Chicago, Ill.
28. The Contagiousness of Consumption. J. M. Anders, Philadelphia, Pa.
29. The Use of Normal (Horse) Serum in the Treatment of Tuberculosis. Wm. Thornton Parker, Groveland, Mass.
30. Tuberculosis in the Southern Negro, Pointing out the Difficulties of Prophylaxis and the Impossibility of Satisfactory Treatment. J. F. Jordan, Montgomery, Ala.
31. Prevention of Tuberculosis. J. M. Emmett, Atlantic, Iowa.
32. The Present Status of Preventive Means against the Spread of Tuberculosis in the Various States of the Union, Critically Reviewed. S. A. Knopf, New York, N. Y.
33. Present Attitude of Sanitarians and Boards of Health toward Pulmonary Consumption. Benjamin Lee, Philadelphia, Pa.

FRIDAY, JUNE 4.

34. The Necessity of Fixed Criteria in the Study of the Therapeutics of Tuberculosis. Louis Faugères Bishop, New York, N. Y.
35. Alcohol in Modern Medicine; a Collective Study. I. N. Quimby, Jersey City, N. J.
36. Alcoholic Sore Throat. H. S. Drayton, New York City.
37. The So called Stimulant Action of Alcohol. J. M. French, Milford, Mass.
38. Is Alcohol a Food or Stimulant? W. V. R. Blighton, Buffalo, N. Y.
39. The Therapeutics of Alcohol in Disease. F. B. Garber, Dunkirk, Ind.
40. Alcohol versus Chemical Poisons. C. H. Shepard, Brooklyn, N. Y.
41. Non-Alcoholic Treatment in Diphtheria. L. Frissell, Springfield, Mass.
42. Concealed Alcohols in Drugs. T. D. Crothers, Hartford, Conn.

SELECTIONS.

Malarial Fever in the Goose.—Dr. Osler states that he first had his attention called to the malarial infection of birds in 1886 (*Johns Hopkins Hospital Bulletin* for March). In that year a goose was sent by Dr. MacCallum of Dunnville, Ont., to the Toronto Biological Laboratory with a diagnosis of malaria. Dr. Osler was extremely skeptical about it, as at that time, ten years ago, very little was known about the parasitism of birds, but very much to his astonishment he found large numbers of the pigmented intracellular organisms or hemocytozoa. Since that time he has been interested in the subject as having a more or less direct bearing upon the life history of the malarial parasite in man, since it is quite possible that there may come to us very important clues as to the outside evolutions of that parasite by a study of the forms in the aviarians. As has been remarked by Dr. Barker and others, our research may not with profit be confined to clinical methods; microscopic sections after death yield important information both as to blood and tissue phenomena. We get a very one-sided and incomplete view of the structure of these parasites of malaria and of their attacks upon the cells if we scrutinize them only in fresh blood or in smear coverglass preparations, even when dried and stained. In tissues which have been hardened in alcohol it is very easy in sections stained with hematoxylin and eosin or with methylene blue, to make out within the half-grown and full-grown tertian parasites of human malaria a relatively large spherical area which stains feebly, though sometimes very distinctly in nuclear dyes. Peripheral to this mass is a thin superficial layer which does not stain at all in ordinary nuclear dyes. In this peripheral non-basophile layer of the parasite is situated the malarial pigment when it is present. The internal stainable mass may be centrally placed, though it is more usual to see it situated somewhat excentrally, so that the peripheral layer of non-stainable substance may vary in thickness in different parts of the organism. The

internal mass, which is entirely free from pigment, may stain somewhat unevenly, and occasionally it is possible to make out in it an intensely stained nodule which was thought to correspond to what has been described in stained smear preparations as the nucleus. It would seem more rational to look upon it as the nucleolus or as an aggregation of the chromatin within the nucleus, though for the decision of this point we must wait for further investigations. We need to know more about the macronuclei or micronuclei in malarial parasites, such as have formed the basis of so much interesting research of late years in the infusoria. It is indeed to be hoped that the large size of the malarial parasites in birds will permit of the unraveling of the finer structure of these curious organisms. In studying specimens of the spleens of infected birds, we are well nigh bewildered by the enormous masses of malarial parasites to be seen there. At first it seemed almost improbable that the huge brownish masses could consist of malarial parasites. It seemed more likely that they could be explained as forms of blood pigment, but careful study with the oil immersion lens will convince any one that they are in reality aggregations of altered malarial organisms. There is a distinct possibility that in very malarial districts man may harbor the parasites without showing special manifestations. We know that in certain regions all dogs have filaria in the blood, and in many parts of Africa the filaria are present in the natives without causing much trouble. It is quite possible, too, that there may be a minor grade of malarial infection in which the organisms are not present in sufficient numbers to cause fever or the characteristic paroxysms. Dr. Thayer stated that recent observations appear to show that the parasites of birds and human beings are not identical; they are, however, so similar that it is not improbable that the form in which they exist outside of the body and their method of entrance to the body are likewise not unlike the corresponding phases in the life history of the parasite of human beings. There are many more points to be studied with regard to the morphologic and biologic characteristics of the avian hematozoa. In these present observations, for instance, no idea has been formed with regard to the length of the cycle of existence of the parasites. Danilevsky believes that he has been able to distinguish an acute and a chronic form, while Celli divided the parasites of birds into three forms with cycles of existence corresponding to the quartan, tertian and æstivo-autumnal parasites. Here, however, there has as yet been nothing to point out the exact length of the cycle of existence of each generation of parasites. Further, it would be advisable to make careful measurements and observations of the temperature in infected birds, observations which, to be sure, have been made by other authors, but with regard to which there is as yet a lack of agreement. It is also, I think, very important that the intimate structure of the parasites of birds' blood should be carefully followed out; this can be done with much greater facility than in the human being, inasmuch as specimens of tissues can be instantly obtained at any time desired. But really the most important point, it seems to me, as Bignami has emphasized in a recent paper, is to determine, if possible, the manner in which the parasite exists outside of the body, or more particularly its manner and portal of entry. It may well be possible that careful and continued observations of this sort may bring us nearer the solution of the greatest questions in connection with malarial infection. With regard to the remark of Professor Osler concerning the possibility that a human being may harbor the malarial parasites in an active condition for a considerable time without showing distinct clinical symptoms, I must say that the more of the disease one sees the more reasonable seems the possibility that this condition may exist with relative frequency. In many cases of tertian fever after insufficient doses of quinin, or during attempts at spontaneous recovery, a few parasites may be found in the blood for very considerable periods of time without marked symptomatology. The parasite has been found in the blood of illy-defined cases, such as present no paroxysms, but only vague symptoms; in such patients it is fair to assume that the parasites have not accumulated in sufficient number to produce a chill. If now in a certain number of instances a single tertian paroxysm may be followed without treatment by so extensive a destruction of the organisms that fever does not recur for a week or ten days (a not very infrequent occurrence), theoretically there would seem to be no reason why in certain instances a similar destruction might not occur in groups which have not as yet reached a size sufficient to produce actual manifestations; thus there would result an indefinite prolongation of what one might call the incubation period of the infection.

The Antitoxin in Country Practice.—Dr. Herman of Sansdale, Pa., reports four cases from his note-book of diphtheria, in which the results of the use of antitoxin were most satisfactory. He feels confident that with that remedy the type of diphtheria that is encountered by him can be cured, and that no sequelæ or untoward complications need be feared. This declaration is made independently of any statement relative to the day on which the initial dose is or should be given. He agrees with the foremost authorities that the early employment of the serum is always most desirable, and also states that the severity and prognosis of a case is not dependent, *per se*, upon the number of hours which may have elapsed since the appearance of the first symptoms, but upon the quantity and virulence of the toxins absorbed into the system, and the cell destruction of the vital organs caused by them. The wide difference between individual cases of the same epidemic of diphtheria and between cases of different outbreaks is thus explained. The best rule for treatment is to give the initial dose of antitoxin immediately after the diagnosis of diphtheria is made. In all doubtful cases it is best to administer it even if a positive diagnosis can not at the time be reached. Prof. H. C. Woods states: "There is no reason at present for believing that antitoxin in moderate quantities does any harm when the child has not diphtheria. When, therefore, any case presents the clinical aspect of diphtheria, antitoxin should be used at once. One point I wish to make prominent here is that carbolic acid, which is but feebly antiseptic except in strong solutions, is a powerful toxic agent in the human system. It is too irritant a drug to use in the preservation of antitoxin. I believe the failure to recognize this fact has resulted in deaths which were falsely charged, in part or wholly, against the antitoxin treatment. Trikresol, which is but feebly toxic, does not irritate the kidney, while it is such a valuable antiseptic that but five-tenths of 1 per cent. is required to positively prevent contamination of the serum. All zymotic diseases necessarily have a most dire effect upon the vital organs; these need sustaining treatment, and it is as important to husband the patient's strength as it is to combat the disease. He had several cases in one family, but only one of them was sufficiently severe to require antitoxin. The disease in this patient only assumed a most malignant aspect, the throat being literally full of the exudate. One thousand units of concentrated antitoxin was injected and the doses repeated on the following day. The effect was again equally favorable. At the same time, a brother physician had a patient, an only child in a neighboring family, who was suffering from a most virulent attack of the disease. Encouraged by the foregoing results the physician borrowed my syringe, and with two doses of 1000 units each, successfully treated his case. The dread that he had always entertained of having this monster, diphtheria, invade his own home and community, has absolutely left him, as he is convinced that in antitoxin he has a remedy that is worthy of complete confidence."—*Medical News*, February 20.

PRACTICAL NOTES.

Oxyuris Vermicularis.—Comby administers in the morning fasting for three days, one of the following powders; Santonin 5 centigrams; calomel 10 centigrams. Apply locally at night as the child retires, for three days, the following salve inside the anus: Glycerite of starch, 20 grams; Neapolitan unguent 10 grams.—*Presse Med.*, March 27.

Prophylaxis of Tumefaction of the Cervical Ganglia Consecutive to Eczema of the Scalp in Infants.—Antiseptic cleanliness and relief from the pruritus are the requisites, and Steinhardt recommends for the purpose, washing the child's hands and cleaning his nails every two hours, washing his playthings at the same time and changing the clothes and bed linen frequently. The eczematous regions should be moistened for an hour with fresh Goulard's lead water, and then the following salve applied: Salicylic acid 0.50 gram; menthol 1 gram; linseed oil and lime water ãã 50 grams. Externally.—*Semaine Méd.* March 31.

To Preserve Steel Instruments from Rusting.—Dr. Maréchal in 1893 placed several perfectly new steel instruments, including bistouries, Pravaz' needles, a nickel watch (open), etc., in the following solutions: 1, an aqeous 2 per cent. solution of sodium bicarbonate; 2, ditto sodium carbonate; 3, ditto sodium borate; 4, ditto sodium benzoate; 5, alcoholic 2 per cent. solution of sodium benzoate; 6, alcohol, 95 per cent., 5 grams to 1 gram sodium borate; 7, alcohol 95 per cent.; 8, water. In 1895, two years later, the instruments in the first six solutions were found absolutely intact, without a trace of rust, even when tested with potassium sulfo-cyanid. But those in the 7th and 8th were completely covered with rust. He therefore recommends keeping steel instruments in one of the first six solutions to preserve them from tarnish and rust.—*Gaz. Med. de Liège*, April 1.

Influence of Tobacco on the Nervous System.—Buccelli concludes from his investigations of 200 patients with nerve and brain troubles, and others, that tobacco affects the *normal* nervous system to a comparatively trifling extent, but as soon as the condition of perfect integrity is impaired, its effect is extremely and progressively pernicious. The subcortical and bulbar nerve centers suffer particularly then from the toxic effect of tobacco.—*Riv. di patolog. nerv.*, 1896, page 327.

Traumatisms of the Biliary Passages.—Terrier and Auvray assert in the *Revue de Chir.*, No. 1, that no case of injury to the biliary passages has recovered without puncture or incision, and that better results follow prompt and adequate laparotomy than mere puncture which has often to be repeated. They state the indications for operative treatment as follows: In case of laceration of the gall bladder, suture or ablation, according to the extent of the injury. Ligate an injured ductus cysticus, and conclude with cholecystectomy. Temporary drainage of injured ductus hepaticus, and suture of an injured ductus choledochus, or cholecyst-enterostomy after double ligatures. Although these indications are still partially theoretic, they should be borne in mind in cases of the kind. They report twelve recoveries in twenty-one cases of injury to the biliary passages treated by puncture; four recoveries in seven cases treated with tardy laparotomy, and recovery in both of the two cases treated with prompt laparotomy.

Hoffa's Method of Treating Congenital Luxation of the Hip Joint.—Professor Hoffa (Würzburg) has been in Paris recently, and many were interested in witnessing his operation as he performed it at one of the hospitals. Since Lorenz emphasized the importance of retaining the muscles, he opens up the articulation with a front, lengthwise incision at the edge of the greater trochanter, opens into the capsule in the direction of the neck of the femur, and by twisting the femur outward, reaches the acetabulum, which he hollows out to the required shape, and replaces the head in it, which completes the operation. The wound is tamponed with sterilized gauze, without suturing, and a plaster cast applied. Six deaths occurred in his first 190 cases, but only one in his last 100. Absolute asepsis is the indispensable requisite of success; massage and gymnastics are also important factors. If suppuration occurs, there is imminent danger of anchylosis. He has had no relapse in his last 44 cases of bilateral luxation with pronounced lordosis. Almost normal position and abduction of the extremities was secured. The best age for the operation is between 3 and 4. It is difficult to reduce the femur in older subjects, and Kirmisson's sub-trochanteric osteotomy is to be preferred, or for bilateral luxations Hoffa's "pseudo-arthrosis," which consists in sawing off the head of the femur and fixing the end to the pelvis. He exhibited at the Acad. de Méd., a six-year-old child successfully operated by this method.—*Bulletin*, March 16, and *Therap. Woch.*, March 28.

Antitoxins in the Blood After Recovery from Streptococcus Infection.—Neufeld concludes his report of experimental investigation in this line with the statement that all results were negative, and hence the outlook does not seem very favorable that we shall be able to secure artificially in animals what Nature herself is unable to accomplish in human beings recovering from streptococcus infection, namely, an accumulation of antitoxins in the blood.—*Deutsche Med. Woch.*, March 11.

Rectal Injections in Diabetes with Threatening Coma.—The obstinate constipation in diabetes is due to the more or less paralyzed condition of the bowels, unaffected by purgatives taken into the stomach, or else the violent evacuation induced may lead to serious accidents. Dr. P. A. Teschemacher recommends an injection of 10 to 40 grams of glycerin three or four times a week, retained half an hour in the dorsal decubitus, if possible. He also rests the stomach by administering alimentary injections four times a day, composed of 50 grams of wine, the same quantity of bouillon, to which somatose has been added, two eggs and a pinch of salt. At this time nothing should be taken into the stomach but a few swallows of wine or brandy, a little beef tea, and pounded ice to quench thirst. —*Semaine Méd.*, March 20.

Tests in Cases of Apparent Death.—Icard suggests that certainty can be attained in doubtful cases by the subcutaneous injection of some stain, soluble in water, non-toxic, non-caustic, and containing a substance not found normally nor accidentally in the organism. If the stain is then found in the blood or some remote part of the body, it must have been absorbed, and there is still life remaining, as absorption ceases absolutely with life. He recommends fluorescein for the purpose, as 1-1000 gram will discolor perceptibly forty-five liters of water. Half a gram injected subcutaneously, will stain in a few minutes the skin, eyes, mouth, urine and serum a brilliant green, if there is still life. The iodids are also effective; 25 centigrams will be found by the starch test in the urine and saliva in a few minutes, if it is absorbed. Three grams of potassium or sodium ferrocyanid can be injected and can be readily distinguished in the urine by testing it with perchlorid of iron, which forms Russian blue with it. Another way is to pass a thread through a fold of the skin. It is thus moistened with the serum, and turns bright blue after dipping it into weak hydrochloric acid, and then into perchlorid of iron, if the injected salt has been absorbed. He also states that aromatic substances are eliminated by the bronchi to such an extent that they are easily detected if they have been absorbed. These tests should reassure those who are haunted by the fear of being buried alive. —*Journal des Sc. Méd. de Lille*, April 3.

Injections of Artificial Serum in Uremia.—Richardière in *Union Médical*, December 5, has used large injections of artificial serum in two cases with good results. His practice is to bleed to 300 to 400 grams, and immediately inject slowly into the cellular tissue 800 grams of serum at the temperature of

the body. The serum is made after Hayem's formula, and is used aseptically. His first case presented intense dyspnea, numerous mucous and subcrepitant râles all over the chest, and nearly all the subjective symptoms of Bright's disease, with extensive edema. Under ordinary treatment the patient got worse, respirations rising to 48 per minute with Cheyne-Stokes character, and suffered from hallucinations, so that six days after admission he was comatose, and dyspnea was still increasing. Bleeding to 300 grams, with injections immediately after, was followed by a fall of pulse rate from 140 to 120; the temperature rose from 37.8 to 37.9 C., and the respiration became slower and regular. During the next few days the urine increased in amount, then fell again, when Cheyne-Stokes breathing reappeared and the state became alarming. The patient was bled again 250 grams, and injected 800 grams; a second injection was given six hours afterward. Temperature rose 35.8 to 37 C., and no further trouble occurred, although the edema persisted; respirations remaining regular, and he remained free from somnolence, passing about one liter of urine in twenty-four hours. The second case presented signs of grave uremia; injection was followed by improvement, which failed again in twenty hours. A second injection was followed by profuse diarrhea, and caused permanent amelioration of the condition. He quotes other cases, and points out that the injection is harmless though painful; it raises the temperature, slows the pulse and steadies breathing previously irregular and of a Cheyne-Stokes character, lessening the rate at the same time. It also increases the amount of urine and seems to have a tendency to produce diarrhea, which he looks on as favorable.

Aid to Diagnosis of Fractures.—It is often difficult to decide after an accident whether a limb is fractured or only bruised. Schröter has been able to decide the matter at once by simply placing the palms of his hands on each extremity of the bone in question and exerting a firm, increasing pressure on it, longitudinally to its axis. If the bone is not fractured, the pressure is not at all painful, and the patient can be reassured at once. But if it is fractured even the first feeble pressure elicits a cry of pain, and the patient is convinced immediately of the necessity of fracture treatment. He suggests the name "bipolar counter pressure" for the test, which he states is probably practised by others, but of which there is no mention in the text books.—*Cbl. f. Chir.*, April 3.

Tuberculous Arthritis in Early Infancy.—Rovsing has observed seven cases of a special tuberculous joint affection, which differs in several respects from the generally accepted picture of tuberculous arthritis. It resembles more a pyarthrum tuberc. acutum and is distinguished by its especially favorable prognosis, even quoad functionem, and the property it shares with tuberculous peritonitis, that it is cured by simple incision, arthrotomy. It commences suddenly with fever, sensitiveness and tumefaction in the joint, and microscopic and bacteriologic tests disclose the presence of the tubercle bacilli. In five cases the knee joint alone was affected, in three several were involved. The necessity of asepsis to prevent mixed infection is evident. —*Cbl. f. Chir.*, April 3.

Intolerance Toward Antipyrin.—Among the discussions that have been going on at the Therapeutical Society of Paris recently, an important one was that which dealt with intolerance of certain drugs displayed by some patients, in particular as regards antipyrin. M. Lyon, M. Dalché, and M. Duchenne reported cases of stomatitis, pemphigus and various rashes produced by antipyrin. M. Blondel related a case where the use of antipyrin produced buccal lesions in a woman exactly like mucous plaques and also a rash resembling syphilitic roseola, so that the diagnosis from syphilis was rendered very difficult. The majority of patients with this idiosyncrasy had no albuminuria, so that it did not seem to depend upon faulty elimination, but rather on some particular predisposition of the subject. It was possible that in many cases the digestion was at fault, for, on the one hand, these accidents more rarely followed the use of antipyrin in solution than as a powder, and on the other hand, the drug was much better tolerated if given with bicarbonate of soda or some intestinal antiseptic.

Suppurations in the Adipose Tissue Surrounding the Kidneys.—Niebergall states that apparently insignificant trauma may lead to this condition; a false step, digging or stamping with the foot, lifting or carrying heavy weights, riding in a jolting vehicle or on horseback. These may occasion some trifling hemorrhage in the pararenal tissues, followed later by suppuration. Pain is felt in the renal region, and a swelling is noticed apt to be ascribed to a perionstatic abscess of the os innominatum. The fever is not characteristic, but there is usually obstinate constipation. Motion is painful, with radiating pains. There is usually a more or less characteristic flexion contracture of the thigh. Prompt evacuation will alone prevent the most serious consequences. He prefers a retro-lumbar incision, with ample provision for the evacuation of the pus out of all the pockets. Secondary tuberculous lesions of the kind may require nephrectomy. The abscesses take a long while to heal even with complete drainage, and the cicatrix is liable to impair efficiency for military service. He reports three cases and reviews seven others, in the *Deut. Mil. Ztschrift.*, August and September, 1896.—*Cbl. f. Chir.*, February 17.

Glioma of the Brain.—Devic and Courmont (*Revue de Médecine*, April 10, 1897, p. 268) have reported the case of a man, 46 years old, presenting narrowing of the mitral orifice of the heart, who was seized with headache, apparently due to an abscess of the brain seated in the right frontal region. Domestic difficulties were followed by an aggravation of the headache and the development of mental symptoms, with alterations in memory, apathy, suicidal ideas and attacks of sopor. In the course of six months manifestations of ambulatory automatism were superadded. In the further progress of the case the headache increased in severity, insomnia set in, the remaining symptoms progressed and left hemiplegia developed, with bilateral papillary edema. Finally, trephining was undertaken and a glioma removed from the right frontal region. The headache and the edema of the optic papillæ soon disappeared and the hemiplegia became less marked. Improvement continued, though interrupted temporarily by an attack of migratory erysipelas of the face, after which, however, the general condition was satisfactory. Some four months after the operation left hemiplegia followed a mild apoplectic attack, but without the development of the earlier symptoms. Death took place, and postmortem examination disclosed a thrombus at the origin of the right Sylvian artery, with a focus of encephalitis, but without any sign of recurrence of the glioma. From a study of this case the conclusion is reached that certain cerebral tumors may be attended with pronounced mental symptoms, appearing in advance of sensory and motor manifestations. Ambulatory automatism is a rare form of the psychic disorders of this kind. The tumors that occasion mental symptoms are seated most often in the frontal lobes. They exert this influence either by massive destruction of cerebral substance or by causing degeneration of tangential fibers or by simple compression or by reason of their mere presence. Trephining with ablation of the tumor, may be followed by disappearance of the edema of the optic papillæ within forty eight hours, and also by recovery from the hemiplegia and the mental disorder. Cerebral compression is the principal factor in the development of these phenomena. Recovery following extirpation of the tumor, while extremely rare in the case of glioma, may however be complete and may persist if there be no local operative complication, as encephalitis, thrombosis, etc. This fact ought to encourage surgical intervention in the majority of cases.

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SATURDAY, MAY 8, 1897.

THE PHYSICIAN AND THE HOSPITAL.

A subject which at present seems to provoke considerable discussion in medical associations and in medical journals, is the so-called "Dispensary and Hospital Abuse" question. It is by no means a new one, but probably it is being looked at from a different point of view. The profession of medicine, like that of theology, has seldom been considered in a commercial sense. Doctors are supposed to be poor business men and are usually judged by other methods than those which hold in the laws of trade.

The medical guilds and societies which have existed since the earliest times have been concerned more with the advancement of learning and the forwarding of the science of medicine than with any pecuniary betterment of its members. Guilds in the trades have held out for shorter hours of work, more pay, recognition of members of the union, etc. Doctors of Medicine, however, have usually been their own masters. The tools necessary for the profession were owned by themselves individually. Just as in the earlier days of industry, when each shoemaker, each carpenter, each weaver and potter was his own employer and rendered his services direct to the consumer.

In industry things are changed; the factory has come into vogue and a few persons own the tools and the machinery, while the mass of workers are merely "hands," whose product belongs to the factory owner, who gives in return sufficient only to keep the "hands" alive.

In the medical profession a similar state of affairs is beginning to exist. In the large cities there are no huge factories to employ medical men, but there are huge hospitals which occupy the same relative position. When machinery was introduced the poor individual artisan whose livelihood it took away was very bitter in his opposition. In England the factories were burnt and the machinery for woolen manufacture destroyed by the weavers whom it displaced; but machinery triumphed, concentration of capital increased, the factory system like some great juggernaut swept everything before it, crushing out the lives of the skilled trades and doing away with the individual shoemaker and weaver. Of course, when disinterestedly we take a calm retrospective view of the situation, we feel that this evolution in industry is as important and essential as the change from stage coach to steam locomotive in transportation and not in the least to be regretted.

The medical hospital and institution is in a position to treat the sick with such appliances and with such measures as no individual practitioner can command. There are no great machines required in the art of healing, but the serious surgical operations which demand special care, the BRAND method of handling enteric fever, the MITCHELL rest cure are measures which one can hardly deny are better employed in a hospital than in the home. Then there is specialization. The dispensaries as manned at present are in no position to give accurate or careful treatment to those who make use of them; but what might not an institution, having in its employ paid specialists and demanding a moderate fee for its services, do to systematizing and making thorough the treatment of those who come to it for relief? The patient would meet the registrar, he would then be sent to the ophthalmologist, aurist, laryngologist and other "ists." His urine, sputum and blood would be examined and then the reports of the examinations would come to the head physician or surgeon, who would be in the best position to know what to prescribe. The medicine would be compounded by intelligent and capable pharmacists and the whole institution would be under the strictest scientific management. This is the next advance that will probably come in institutionalism. The first steps have already been taken, but the commercial and eleemosynary sides have been made the most prominent. Organizations of physicians, mutual or coöperative, may be obliged to institute such dispensaries and hospitals in order that they should become all that is demanded of them.

In the city of Philadelphia there are over a thousand positions in dispensaries and hospitals occupied by physicians who receive no pay for their work. Thus nearly one-half of the physicians in practice in that

city are connected with medical relief institutions. Not only do these men and women serve without pay, but by treating patients who are able to pay they prevent other physicians from obtaining such fees which otherwise would come to them. Some would advise that the physician run a dispensary in his own office in opposition to the hospital dispensary. This is not a remedy, and any one who tries it will soon find out that it does not pay. Others advise organization on business principles and we understand such a new medical society has been started in New York city.

The trade unionists fought machinery and were defeated. They preached organization, and organization gave them as weapons only the boycott and the strike, and these failed them because of machinery. The hospital is the *machine*, specialism is a part of it and against these the doctor will find it useless to fight. He must recognize the trend of affairs, the natural evolution which goes from the general to the more particular and again to the organization of particulars into a complete whole. If he be wise he will strive to adapt himself, he will make use of the machinery about him and he will associate himself with others for coöperation.

The doctor through organizations has been able to accomplish much for his own good and that of medicine in general. By legislation, he has raised the standard of requirements for entering on the study of medicine, thus limiting the number who engage in the profession. He has succeeded in controlling the work of medical schools. He has been able to educate the community to respect regular physicians somewhat as the trades unions have been striving to do with their labels. And the medical society's boycott is a very strong one. But something more than legislation is required to meet the newer combinations. Laws will not prove effective in fighting hospitals and dispensaries, either in suppressing those already in existence or preventing their spread.

The doctor as a private physician working for himself will more and more find his position disappearing. There will be general practitioners in out-of-way places as there are now; there will be men of rare talent and ability who will attract by their personality and who will remain individualistic in their work.

But the great mass of town physicians may be obliged to adapt themselves to other conditions, and either become salaried employes of State and private institutions or form mutual and coöperative hospitals and dispensaries, thereby employing themselves; which plan or plans will soonest find adoption the future alone will tell; but the general physician will probably not remain as he is, and sooner or later he will be obliged to choose between the old and new paths.

Let us have a Department of Public Health!

CEREBRAL HEMORRHAGE FOLLOWING DIPHTHERIA.

That diphtheria, apart from the mechanical interference with respiration to which it gives rise when the larynx is involved, exerts its baneful influence through the activity of poisons generated as a result of the disease-process may be accepted as a fact. Some of the toxic complications and sequelæ are attributable to the presence of the diphtheria-bacilli, others to secondary infection. In either event these possibilities must be constantly borne in mind and be as carefully guarded against as possible. Early administration of the antitoxin is capable of averting in a large degree many of the toxic manifestations, as well as the unpleasant and dangerous results of interference with the respiration through obstruction of the larynx. There is reason to believe further that judicious employ of antistreptococcic serum will serve to mitigate the severity of many attacks of diphtheria, especially when secondary infection exists.

The poisons circulating in the blood as a result of the pernicious activity of the diphtheria-bacilli and other microörganisms exert their toxic influence especially, though not exclusively, upon the parenchyma of manifold tissues and organs. Liver and kidneys are especially prone to suffer and the nervous system scarcely less so. Probably the most common nervous lesion is neuritis, as manifested more particularly by paralysis of the soft palate (with regurgitation of liquids through the nares), cycloplegia (with paralysis of accommodation), foot-drop, abolition of knee-jerks and motor disability. In a much smaller proportion of cases the brain suffers, directly or indirectly. Cerebritis and meningitis would seem to be of rare occurrence. As the result of the action of the poison or poisons of diphtheria upon the blood and the blood vessels hemorrhage into the brain may take place; or from the detachment of endocardial vegetations secondary to inflammation of the lining membrane of the heart, embolism of a cerebral artery may result; or finally by reason of weakness or irregularity of action of the heart in consequence of toxic influences upon the vagus or the intra-cardiac ganglia or upon the heart-muscle itself, cerebral thrombosis may develop. Of a case of the last kind LEVI (*Archiv für Kinderheilkunde*, B. XXII, H. 1, 2, p. 11) has made an interesting report, to which he appends an analysis of the small number of cases previously recorded.

A girl, 6 years old, came under observation at the close of the first week of a severe attack of diphtheria of gangrenous type. Under treatment with antitoxin and repeated irrigation of the nares improvement gradually set in. At the close of the second week, however, speech began to be nasal and in a short while paralysis of the soft palate was evident, with regurgitation of fluids through the nares. The power of accommodation also became diminished. In the

third week there appeared at the site of the last (fifth) injection of antitoxin an urticaria-like eruption, which spread in a short time over the entire body, excepting the face. This was accompanied by renewed febrile movement, marked prostration, increased presence of albumin in the urine and for the first time also of hyaline and granular tube-casts. Edema of the face and extremities developed and the action of the heart became irregular. Finally symptoms of endocarditis also appeared. At the end of a month right-sided otitis developed as a further complication. Several days later the patient was suddenly seized with an apoplectic attack, followed by paralysis of the left side of the face and of the left lower and upper extremities. From this considerable amelioration took place in the course of a few hours, but two days later a second attack occurred in which the same parts were affected though now in more pronounced degree. The facial palsy gradually diminished, while that of the extremities persisted. After another interval of nine days the child manifested evidences of weakness of the trunk and neck. Sensibility and reflex activity remained unaffected. Slow improvement followed, although stiffness and weakness remained. Diphtheria-bacilli were demonstrated in the discharges and in the membrane from the throat and nose for a period of six weeks, together with streptococci and other microörganisms. The case is viewed as one of cerebral thrombosis, largely on account of the enfeeblement and irregularity of action of the heart, in conjunction with increased plasticity of the blood, but principally on account of the situation of the lesion on the right side of the brain and the transient and incomplete character of the symptoms.

LEVI has succeeded in collecting from the literature thirty-four cases of cerebral hemiplegia in the sequence of diphtheria, in addition to his own, so that it will be seen that the frequency of this complication is not at all great. The rarity becomes accentuated when compared with the frequency (25 per cent., GOWERS) of other forms of paralysis complicating diphtheria. In the thirty-four collected cases embolism was given as the lesion in fourteen cases and hemorrhage in seven; while in the remaining thirteen the diagnosis was not clear. Reports of necropsies were made in only six cases, in one of which hemorrhage was found and in the remainder embolism. Of the total number of thirty-four cases complete recovery is stated to have taken place in four and death in seven, while the remainder entered upon the chronic stage of cerebral paralysis.

THE BRITISH DOCTOR AND HIS SOCIAL RANK.

Dr. MALCOLM MORRIS, in the April issue of his magazine, *The Practitioner*, takes exception to the statements in an editorial in the JOURNAL some months ago in regard to the estimation of the medical profession by British royalty, and its social standing generally in Great Britain. He claims that it misrepresented the facts, that there was "a daring fatuity" in its statements, and that far from being ill-treated by royalty, no profession has been more honored than has that of medicine.

Of course much depends upon the point of view, and what Dr. MORRIS may consider as special consideration may not be so self-evident to cis-Atlantic eyes, but if any injustice has been done to Her Imperial Majesty, the present fountain of honor in the British dominions, our apologies are hereby tendered. It seems hardly necessary, however, to consider that any such are due to the ex-commander-in-chief whose insulting address to an army medical officer was quoted from an English journal in the aforesaid editorial. It is a weak defense to say that this behavior was due to his special ideas in regard to military discipline. As far as that special relative of the royal family is concerned, certainly no very serious injustice has been done.

In spite of Dr. MORRIS'S expressed opinion there still remains a doubt as to whether the medical profession has received the consideration that ought to be its recognized due. The personal confidence and friendship of royalty given to its individual members does not necessarily elevate the profession socially, for the same is given to menial attendants. Neither does the making of a few medical baronets or the late elevation to the peerage of a distinguished surgeon, who is not made any more illustrious by the bestowal, give it really any higher social rank as a body, nor do away with the fact that it is the only one of the three learned professions that has, as such, no place in the sixty or more grades of precedence that appear to be still a part of the social law in the British islands. Dr. MORRIS himself admits that the social position of doctors in England is perhaps not what it ought to be, and that is the important question, not what the Queen's intentions may have been.

To an American, the grades which the English medical profession itself makes amongst its members would seem to have a tendency to degrade it as a whole. The controversies that are carried on in British medical journals as to the right to use the title of doctor on a doorplate or a card, are not particularly elevating in themselves; the public recognizes the fact that professional ability is not to be gauged by the title, and, if one is not mistaken, is inclined to grant it to all respectable general practitioners. The fact that it may possibly be given to unworthy individuals does not necessitate the distinctions that are made, when the public does not practically recognize them. It is only in a certain limited social way that they have any value, and that is to the advantage of only a part, and to the disadvantage of the remainder. If they even represented any really important differ-

ences in qualifications, professional or otherwise, that time is now past, for many of the brightest lights of British medicine, among them apparently Dr. MORRIS himself, do not carry the title of M.D., and they are not necessarily inferior in general education or culture to those that do have it. If a man has a university degree let him append it also to his name if he wishes to, and as is done by many; there is no good reason why it should be included in his medical appellations to make a professional distinction, to the disadvantage of his equally qualified and worthy, though perhaps less fortunate, medical brethren.

It is commonly said that science recognizes no national frontiers, and it is on this ground that whatever effects our profession elsewhere is of interest to us here. America and England are the two most closely related nations, with largely the same laws, the same general characteristics, and to some extent the same institutions. Fortunately, however, we have in this country escaped some of the social incubi that still bear down upon our English confrères, and it is to be hoped that British common sense and justice will before long overcome British conservatism in doing away with certain usages and social laws which, as applied to a scientific profession, are irrational and ridiculous.

We have in this country our own troubles, and some of them in the military and naval medical services are occasionally suggestive of those abroad, but such flagrant outrages as that in the BRIGGS case, not long since discussed in English medical and lay journals, could never occur under our institutions. Such an incident shows the actual injustice and hardship that is possible with the system of social distinctions like that existing in Great Britain and its dependencies, and which no amount of philosophy can render easily endurable.

CONGENITAL CEREBRAL DIPLEGIA FOLLOWING EXTRA-UTERINE PREGNANCY.

In a considerable number of cases presenting spastic conditions from birth a history of difficult labor or of instrumental delivery can be secured. There remains, however, not a small number in which such a history is wanting and one is at a loss to account for the manifestations. While the possibility of intra-uterine disease of the fetus, traumatic or infective, can not under these circumstances be denied, there is little actual evidence in support of such a view. This possibility is given strength and may be said to be raised to the dignity of a probability by the report of a case by GROSZ (*Deutsches Archiv für Kinderheilkunde*, B. xxii, H. 1, 2, p. 1) in which spastic manifestations were present in a child born by abdominal section after a extra-uterine pregnancy, examination after death disclosing gross organic changes in the brain sufficient to account for the symptoms observed during life. When examined, ten days after birth, the child, a female, presented a dolichocephalic head, with a distinct depression upon the left side, which was attributed to the pressure exerted by the adjacent uterus. There was, besides, paresis of the right side of the face and rigidity of the upper and lower extremities upon the right side of the body. Increase of the knee-jerks could not be made out. The head was deflected toward the right shoulder.

On account of the poor state of the mother the child was nourished with sterilized milk, which it appeared to bear well, although it developed slowly. In a short while athetoid movements appeared in the right hand, while some degree of motility returned in the arm. The rigidity in the right lower extremity also diminished somewhat. At the same time loss of power set in in the left upper extremity, together with rigidity and athetoid movements in the fingers. The patellar and the tendo-Achillis reflexes became exaggerated. No derangement of sensibility could be made out. The general condition of the child gradually failed and death took place at the age of four months.

Upon postmortem examination the left cerebral hemisphere, on its convexity as well as at its base, was found covered with a pseudo-membrane, throughout which numerous small hemorrhages were distributed. Both hemispheres displayed evidences of flattening, the left in particular, in conjunction with defects in development and secondary degeneration of cortico-muscular tracts. The right pyramidal tract of the spinal cord was degenerated and the whole of the right half of the cord was less well developed than the left.

This case would seem to show conclusively that cerebral lesions and spastic states may develop in prenatal life; and what is possible under the conditions attending extra-uterine pregnancy seems scarcely less possible under those attending ordinary uncomplicated intra-uterine gestation. Probably few women pass through pregnancy without traumatism, concussion or shock of some sort or some infectious disease or other, influence capable of causing a cerebral lesion, with its developmental imperfections and attendant manifestations. It may easily be that to these groups of causes are due a considerable number of cases of idiocy, spastic paralysis and allied conditions dating from birth.

EUROPEAN STEAMSHIP MEDICAL OFFICERS.

It has been alleged from time to time that anything but care is used in the selection of the surgeons of the various European steamship lines crossing between America and Europe. That there is some basis for this complaint is shown by the results of a criminal trial just concluded in a French court. The correc-

tional tribunal at Marseilles has condemned to two years imprisonment and a fine of 1,000 francs an individual named GOUNEAU, who had found means to get appointed surgeon on board the liner *Les Andes*, although he had never studied medicine. For two years the sham doctor occupied his position and even amputated a leg and performed other operations without serious results to the patient. This case which is but one of a number reported from time to time, indicates that some sort of supervision should be exercised over the medical officers of European steamships. While actions for malpractice by passengers would undoubtedly lie against the steamship companies for improper selection of their medical officers, still this is rather a round-about method and would fall far short of producing immediate benefit.

AN OSTEOPATHY CONSPIRACY.

It is now absolutely certain that the "osteopaths," whoever they are, have an organized conspiracy to have their diplomas recognized, and themselves placed above the regular profession in the eye of the law, in every State in the Union, as the Osteopathy Bills identical in words have been introduced in various legislatures. In most of the States an attempt has been made to sneak the bills through the Legislature without comment, and, as might be expected, with the least possible publicity.

Who is paying for all this energetic action on the part of the legislative Solons in the different States, has not yet been made apparent, but a certain advertising quack in Chicago admitted within the hearing of the writer of this article, that he himself had "put up," and was therefore sure of the passage of this bill. He said it would be the means of breaking down the present laws enacted against quackery and advertising generally.

By reference to another column it will be seen that the bill was railroaded through the Michigan Legislature at a speed that puts legitimate measures to the blush. [See page 910.]

THE JOURNAL SPECIAL TRAIN.

Medical gentlemen from Illinois and vicinity, the Pacific Coast and the Northwest, who intend to be present at the great jubilee meeting of the ASSOCIATION, are invited to go by the JOURNAL SPECIAL, which will go by the Pennsylvania Railway without change from Chicago to Philadelphia. See their advertisement in another column.

CORRESPONDENCE.

Teaching Materia Medica.

PITTSBURG, PA., May 3, 1897.

To the Editor:—So many physiologic actions are accredited to each agent in the text books on materia medica that the average student does not know the difference between the important or leading actions and those of minor importance. If you ask a recent graduate from any medical school to name the five most important physiologic actions of the common drug, opium, he will probably be unable to correctly answer in a majority of cases. Personal observation, rather than rumor, justifies this statement.

The lack of this essential knowledge of the important drugs is to be deplored; and its remedy should engage the attention of all medical teachers. The great majority of medical graduates know little of pharmacy and less of materica medica. They enter practice and waste their lives writing original package prescriptions.

In teaching this important branch too many agents are studied and too few, if any, are mastered. If from the more than a thousand preparations in the U. S. P. fifty leading ones were thoroughly taught, and the student had *enough* of pharmacy to enable him to prescribe or compound prescriptions scientifically, the golden dawn in medicine would be hastened.

Original investigation deserves commendation, but the medical student ought first to follow well-beaten paths, until he has had actual practice. The prescriber who knows a few drugs thoroughly and has mastered the principal physiologic actions of each, is less liable to order agents not needed by his patient.

There has been a noticible improvement in medical teaching in the last ten years, but much remains to be done. While graduates are sent out from many medical schools after a four years' course, who can not give the principal actions of common drugs like morphin, strychnin, digitalis and quinin, it is time to further revise the methods of instruction.

E. B. BORLAND, M.D.

Requirements for Membership.

GRANDVIEW, IND., May 3, 1897.

To the Editor:—Will you please state to me the requirements for membership in the AMERICAN MEDICAL ASSOCIATION.

Respectfully, W. C. FINCH, M.D.

ANSWER: "The delegates shall receive their appointment from permanently organized State medical societies, and such county and district societies as are recognized by representation in their respective State societies, and from the medical departments of the Army and Navy and the Marine-Hospital Service of the United States.

"Each State, county and district medical society entitled to representation shall have the privilege of sending to the ASSOCIATION one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number; provided, however, that the number of delegates for any particular State, Territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the ASSOCIATION.

"*Members by Application.*—Members by application shall consist of such members of the State, county, and district medical societies entitled to representation in this ASSOCIATION as shall make application in writing to the treasurer, and accompany said application with a certificate of good standing, signed by the president and secretary of the society of which they are members, and the amount of the annual subscription fee, $5. They shall have their names upon the roll, and have all the rights and privileges accorded to permanent members, and shall retain their membership upon the same terms."

"Medical Instruction of the Laity in the Lay Press."

WILLETS POINT, NEW YORK HARBOR, April 30, 1897.

To the Editor:—Dr. Shastid's suggestions on the above named subject on page 808 of your issue of April 24, strike one as being very good. Something has already been done in this

direction by Dr. Cyrus A. Edson and others (though Edson signed his articles); and in the leading lay newspapers, particularly the New York *Tribune* and *Times*, short unsigned articles are not infrequently seen which must have been written by physicians.

Dr. Shastid evidently takes the broad view that medicine should no longer be a mere occasionally useful mystery to the laity, but a living, continuously applied help to a higher civilization.

Public instruction will be of great benefit to the masses provided it is conservative, non-dogmatic, free from great detail, and be imparted in popular, but dignified and serious language.

The proposed system is in the line of preventive medicine which has, leaving out surgical matters, already helped the world vastly more than curative.

Reacting, this instruction will tend to beget among the laity more respect for physicians in the everyday affairs of life, and will do much toward blotting out the only too common opinion that, while they are well posted in technical knowledge, they can not be trusted in positions where executive ability is needed. Witness the charter of Greater New York requiring that the president of the board of health *shall not* be a physician.

Likewise it will add impetus to the movement for the creation of a Department of Public Health, the mile-post that most of us hope to see passed in our time—for we do not doubt that we are on the road to it.

Finally, the system, if carefully carried out, will redound to the credit of the AMERICAN MEDICAL ASSOCIATION, and serve to draw its members into a closer union, and to attract new members.

J. D. POINDEXTER,
Captain, Med. Dept. U. S. Army.

PUBLIC HEALTH.

A Study of the Ocular Refraction in School Children.—As the result of a study of the refraction of the eyes of 1,000 school children, with particular reference to astigmatism as shown by the ophthalmometer, Carhart (*New York Medical Journal*, April 17, 1897, p. 520) expresses the opinion that changes in ocular refraction during childhood and adolescence are due to slow distension of the eyeball, caused either by strain of accommodation in an otherwise healthy eye, or by physiologic use of an eye weakened by local or constitutional disease or dyscrasia. Poor light in crowded school rooms is particularly productive of accommodative strain. Such distention of the eyeball results not only in progressive lengthening of the optic axis, but also in alterations of the curve of the cornea. In a considerable proportion of cases, hypermetropic astigmatism is probably congenital, but in much the larger proportion and in all cases myopic and mixed astigmatism are caused by the same process as results in lengthening of the optic axis from the congenital high degree of hypermetropia of infancy to the high degree of myopia seen typically in German universities, and occasionally in our schools. This process of distension is more easily arrested in its earlier stages, and therefore prompt and exact correction of the refractive error, and particularly of low grades of astigmatism, is indicated in all cases to prevent an extension of the process. In cases of compound myopic astigmatism correction of the astigmatic element is of equal, if not of greater importance than correction of the myopic element of the refraction.

Prophylaxis of Yellow Fever in Brazil.—The disease was kept under control and stamped out in Buenos Ayres by the immediate removal of every case as it appeared to the floating hospital, while all the other inmates of the house were taken at the same time to the island quarantine station, where they remained until all danger was past. The house was submitted to a vigorous disinfection during the entire time of their absence, and as a final measure, all the walls were whitewashed or calcimined. The physician first called to the case was also quarantined in his own house for the same length of time, and the premises disinfected. By these means the disease was restricted to a few isolated cases in the early spring. Dr. A. Simoes proclaims in the *Rev. Med. Chir.* of Brazil the success of inoculations with attenuated cultures of the yellow fever microbe, the micrococcus xanthogenicus discovered by Freire in 1880. Since he was authorized in 1883 by the government to administer them, 11,881 persons have been inoculated, and he states that the mortality among them has been only 0.5 per cent., while among the rest of the population it has averaged 30 per cent. The yellow fever hospital had a mortality of 78 per cent. until the inoculations were introduced, when it fell to 30 per cent. He adds that if all strangers recently arrived, and all persons exposed to contagion, would have themselves inoculated, epidemics would cease and there would only be a few sporadic cases, while vigorous hygienic and disinfecting measures in addition would exterminate the pest altogether.—*Cronica Medica*, October 15.

The Influence of Smallpox Hospitals upon Adjacent Territory.—A recent number of *Public Health* (London) contains an interesting abstract by Dr. Meredith Young of the Local Government Board Report, 1894-5. Dr. Young, in dealing with the question of smallpox, points out that though the thesis of the aerial connection of this disease is regarded by the "bulk of authorities" as a settled question there are many still unconvinced, and he draws attention to the experience of Hastings in 1894, where the facts observed form yet another illustration of the danger of placing these hospitals near to human habitations. It was found in that instance that out of thirty-six cases which occurred within 500 yards of the Hastings Smallpox Pavilion the percentage of smallpox attacks to population varied as follows:

	Attacks. Per cent. of population.
Within 100 yards circle,	4.2
Within 100 to 200 yards zone	2.7
Within 200 to 300 yards zone	1.9
Within 300 to 400 yards zone	0.9
Within 400 to 500 yards zone	0.2
Total within 500 yards circle	1.3

Dr. Young adds that the diffusion of smallpox occurred apart altogether from any communication of contagion by infected persons or things, as a most painstaking inquiry showed.

Necessary Police Powers Over Water-sheds.—There is only one correct time for the protection of the water supplies of cities, and that is as early as possible in the formation of the plant. If this protection is put off, or is made to depend upon special legislation, the result is only too apt to become a failure; or if not a failure, it is often the source of inordinate expense. The State board of health of North Carolina has laid before itself the very commendable task of trying to reduce the death rate by typhoid fever, and laws are being framed to begin the work of protecting all the public water-supplies of the State. According to a writer in the *Bulletin* of that board for March, the supplies are peculialy liable to pollution and the State pays a heavy tax in lives by reason of that fact. How heavy the tax is, the following computation by Dr. R. H. Lewis, Secretary, has been drawn up for the information of the law makers:

"Of all the preventable diseases, consumption alone excepted, *typhoid fever is by far the most deadly* in our State. In the year 1896 there occurred in eleven cities and towns of the State, having an aggregate population of 105,501, which certified to the accuracy of their mortuary statistics, 107 deaths from typhoid, or 1 in every 967 of the population. Estimating at this ratio for the whole State on a basis of 1,800,000 population, the number of deaths from typhoid fever in North Carolina during the past year was 1,861. Taking the death-rate given by one of the highest authorities in a similar calculation, 10 per cent., there were, during the same time, 16,740 persons

sick of the disease who recovered. Let us see what this meant to the State in dollars and cents, leaving out of consideration entirely the anxiety and sorrow entailed. Valuing each life at $2,000, time lost by those who recovered on an average of forty-five days of sickness per case at 80 cents per day, nursing, medicines, and doctors' bills at $25, and funeral expenses of those who died at $25 each, the statement of the matter in tabular form is as follows:

1,861 deaths at $2,000 each	$3,722,000
1,861 funerals at $25 each	46,525
Wages of 16,740 convalescents, during forty-five days, at 80 cents	360,103
Nursing, medicines and doctors' bills for 18,610 cases, at $25 each	465,250
Total tax levied in 1896 by typhoid fever upon the State	$4,593,878

"Deducting 33⅓ per cent. for every possible inaccuracy or over-estimate, typhoid fever cost the State last year, in round numbers, $3,000,000.

"Typhoid fever is a preventable disease. It is caused almost invariably by drinking water which has been contaminated with the bowel discharges of another case. To prevent the entrance of the germs into water in the first instance is for the direct benefit of the 125,000 of our people living in fourteen of our largest and most progressive cities and towns. One case of typhoid fever or cholera on a water-shed without proper sanitary oversight, would be liable to poison the whole city, or at any rate all of the inhabitants who use the public water-supply, to spread sickness and death wholesale. Most of the water-supplies in the State are from small, short streams whose water-sheds are thickly populated, and therefore peculiarly dangerous.

"It is the duty of the State to protect the lives of its citizens. Water companies are corporations organized for the purpose of making money. Their object is to declare dividends. A tender regard for the lives and health of individuals does not characterize them any more than other corporations. It is a proverb that corporations are soulless. An annual expenditure on their part of three or four hundred dollars would be required, but it would be more than re-imbursed by the larger consumption which would result from the greater confidence in the purity and safety of the water, that the presence of this law on the statute books would give. It would remove the suspicion and distrust that now exists—and with reason—in the minds of many. Seriously, the bill could be justly entitled 'An Act to Promote the Business Interests of Water Companies.' In a word, its passage would materially promote the public health, and not only not injure but positively benefit the water companies.

"The extension of the police powers of the cities and towns to their water sheds, for the purpose of carrying out the provisions of this act alone is extremely important, because it would provide what is now lacking, the practical machinery which would insure protection."

Since the above was written three water companies, namely, Raleigh, Henderson and Durham, have expressed their approval of the bill and their desire for its passage.

New Jersey Epidemic and Quarantine Law.—*Be it enacted, by the Senate and General Assembly of the State of New Jersey:*

1. No vessel having on board any person or persons affected by yellow fever, cholera, typhus or ship fever, bubonic plague, smallpox, scarlet fever, diphtheria, measles, relapsing fever, or any other dangerous disease of a contagious, infectious or pestilential nature, and no vessel infected by any of these diseases, and no infected baggage, dunnage, rags or hides, shall be brought to any wharf in the State of New Jersey, and no person, persons or property shall be landed in this State from any such vessel without a permit shall have first been issued by the health officer of the port, if there be such officer, and if there be no such officer, then by the local board of health having jurisdiction in the locality.

2. The master of every vessel from a foreign or domestic port which shall pass the quarantine station located at City Island or elsewhere in Long Island sound or the quarantine station at Fort Wadsworth or elsewhere in New York bay, and which vessel is allowed by written permit, issued by the proper officer at either of the said quarantine stations, to proceed to any port or place in the State of New Jersey, shall, within twenty-four hours after the said permit is received by him, exhibit said permit and deposit the same at the office of the local board of health of the said port or place of destination, and he shall be entitled, subject to the rules and regulations hereinafter provided for, to receive from the said local board of health, or health officer of the port, if there be such officer, a permit to land passengers, baggage and cargo.

3. The health officer of the port, if there be such officer, and if there is no such officer then the local board of health of every sanitary district in this State is hereby authorized and empowered to order, whenever in the judgment of said officer or board the public health requires such action, that any vessel which is within the jurisdiction of said officer or board may be removed to the quarantine grounds or to some other place of safety, and may require all of the persons, baggage, merchandise and articles which have been landed from such vessel to be seized, returned on board thereof or removed to quarantine grounds or to other place of safety; if the master, owner or consignee of such vessel can not be found, or shall neglect or refuse to obey any such order of removal, such health officer or board of health may employ such assistance as may be necessary to effect such removal, and all expenses incurred in such removal shall be paid for by the master, owner or consignee of such vessel; such vessel shall not return within the limits of the jurisdiction of said board or officer, nor come to anchor, nor land at any wharf within said limits, without the written permission of the said board of health or officer of the port; any person employed to remove any such vessel, persons, merchandise or articles pursuant to this section shall have a lien on such vessel, its tackle, apparel and furniture for his services and expenses in effecting such removal.

4. The masters of vessels arriving at any port or harbor in the State of New Jersey shall pay to the health officer of the port, if there be such officer, and if there be no such officer, then to the local board of health, the following fees: For inspection of any vessel from a foreign port, five dollars; for inspection of every vessel from a domestic port south of Cape Henlopen, between May first and November first in each year, steamers, three dollars, other vessels one dollar; for medical inspection of every one hundred, or fraction of one hundred, steerage passengers upon transatlantic steamers, two dollars; for each permit issued for the discharge of cargo or baggage brought as freight, twenty-five cents; for sanitary inspection of every vessel after the discharge of cargo or ballast, ten dollars; for disinfection of every vessel from an infected port, or of such vessels as shall require disinfection by reason of exposure to infection or contagion, fifty dollars; for vaccination of persons on vessels on board of which smallpox has developed during the voyage, each twenty-five cents; the health officer of the port, if there be such officer, and if there be no such officer, then the local board of health having jurisdiction in each port and harbor, shall report in writing to the board of health of the State of New Jersey on the first day of October of each year; said report shall state the number of vessels inspected during the preceding year; the number of passengers examined; the number of permits issued; the amount of fees received from each vessel and the total amount of fees received, and said report shall also include answers to all inquiries which may have been addressed by said State board to the said health officer or local board of health.

5. The board of health of the State of New Jersey is hereby empowered to make and alter rules and regulations to prevent the introduction into this State of infected persons and property, and to prevent the spread of any dangerous infectious disease which may have been so introduced; the expenses incurred and the services rendered by any local or State health officer, or by any of their employes, in the discharge of any duty imposed by said rules and regulations in relation to vessels, merchandise, baggage or persons, shall be paid by the master or owner of the vessel in which such persons, baggage or merchandise shall have arrived, and all such expenses, services and charges shall be a lien on the vessels, merchandise or other property in relation to which they shall have been made, incurred or rendered, and if such master, owner or consignee shall omit to pay the same within three days after the presentation of such account, the local or State board of health may proceed to enforce such lien in the manner provided by law; any person or persons who shall violate any of the provisions contained in any rule or regulation made by the said State board of health under the authority contained in this section, shall be punished by a fine of two hundred and fifty dollars, or by imprisonment for a period not exceeding six months, or by both fine and imprisonment.

6. Any person or persons who shall obstruct any duly authorized health officer in the enforcement of any of the provisions of this act, or who shall violate any of the provisions of sections one, two, three and four of this act, shall be guilty of a misdemeanor, and shall be punished by a fine not exceeding three thousand dollars, or by imprisonment in the State prison for a period not exceeding one year, or by both fine and imprisonment.

Approved April 9, 1897.

BOOK NOTICES.

Clinical Lessons on Nervous Diseases.—By S. WEIR MITCHELL, M.D., LL.D., Edin. Pp. 305. Philadelphia and New York: Lee Bros. & Co. 1897.

This is a book by a master and if we mistake not it will prove a very popular one. The book treats of hysteria, recurrent melancholia, disorders of sleep, choreic movements, false sensations of cold, ataxia, hemiplegic pain, treatment of sciatica erythromelalgia, reflex ocular neurosis, hysteric contractions, rotary movements in the feeble minded, etc. Few can speak with more authority than the author.

Lectures on Renal and Urinary Diseases. By ROBERT SAUNDBY, M.D., Edin., Fellow of Royal College of Physicians, London, etc. Pp. 434; $2.50. Philadelphia: W. B. Saunders. 1897. For sale by W. T. Keener, 95 Washington Street, Chicago.

These lectures have some of them been printed before and were very well received, the author's long service in the Birmingham General Hospital having given him exceptional opportunities. They have now been revised and republished in this single volume. A fourth section has been added on miscellaneous affections of the kidneys, which makes the book more complete as a work of reference. The volume is well worthy a place in the library of the progressive physician.

A Clinical, Pathological and Experimental Study of Fracture of the Lower End of the Radius, with displacement of the carpal fragment toward the flexor or anterior. By JOHN B. ROBERTS, A.M., M.D., Professor of Anatomy and Surgery, etc. With 33 illustrations; pp. 76. Price $1. Philadelphia: P. Blakiston Sons & Co. 1897.

This book is a verbatim reproduction from the transactions of the American Surgical Association for 1896. The paper is a valuable one. The author has wisely concluded to publish it as a separate volume.

La Spedalita Infantile In Italia. By ALPHONSO MANDELLI, Presidente dell'Ospedale dei Bambini di Cremona, etc. Pp. 648. Milan: Ulrico Hoepli. 1897.

This is a report of the Children's Hospitals in Italy. The work is illustrated with a number of cuts and colored plates, beautifully printed, and they set forth in detail the equipments of the various hospitals devoted to children in Italy and the treatment pursued. It also has the elevations from block plans of most of the institutions. A perusal of the volume will speedily convince the reader that the Italians in practical medicine are fast regaining their ancient prestige.

California of the South. By WALTER LINDLEY, M.D., and J. P. WIDNEY, A.M., M.D., LL.D. Third edition; pp. 335. New York: D. Appleton & Co. 1896.

This work, which is well illustrated, gives in detail the climatic and other conditions of Southern California, and it may be depended upon as a truthful account. There is a map of California in the volume, which has been drawn with the skill which characterizes all the work of the Messrs. Appleton. The book is full of information regarding California and few can read it without a desire to visit the wonderful land, of which after all that has been written only part has been told. The medical reader will find it very helpful to him in the selection of climate for his cases.

Diphtheria and Antitoxin. By Dr. NESTOR TIRARD, F.R.C.P. Pp. 141. London, New York and Bombay: Longmans, Green & Co. 1897.

This little book has its origin in sundry papers read before meetings of the British Medical Association in recent years. It summarizes the result of the antitoxin treatment and free use has been made of the reports of the medical superintendents of the metropolitan asylums and the data brought in the report of the American Pediatric Society, with which report the author is in entire harmony. He regards antitoxin as having robbed diphtheria of most of its terrors. To convince others of that fact seems to be the purpose of the book.

Atlas and Essentials of Gynecology. By Dr. OSCAR SCHAEFFER, privat docent in obstetrics, etc., at the University of Heidelberg. Pp. 288. New York: Wm. Wood & Co. 1897.

This Atlas of Dr. Schaeffer is very valuable and its careful reproduction with its accompanying text gives the reader the concrete advantage of the great gynecologic clinics of Munich. Not only will the book prove an excellent one for students but as well for the general practitioner in any emergency pertaining to the art.

The Diseases of the Stomach. By Dr. C. A EWALD, Extraordinary Professor of Medicine at the University of Berlin, etc. Translated and edited by MORRIS MANGES, A.M. M.D. Second edition; pp. 602. New York: D. Appleton & Co., 1897.

The name of Dr. Ewald is as familiar as a household word on this side of the Atlantic, and to all who pretend to be acquainted with the literature of the diseases of the stomach Dr. Ewald stands as one of the highest authorities.

This is the second American edition and the great progress which has been made since the appearance of the first edition in 1892 has rendered its revision necessary. We observe with pleasure that in prescription writing the translator has retained the metric system of dosage, although for the benefit of those whose knowledge of metric system is yet limited, he has also translated in the old British system of weights and measures.

Lectures on Appendicitis and Notes on Other Subjects.—By ROBERT T. MORRIS, A.M., M.D. Second edition; pp. 173. New York and London: G. P. Putnam's Sons. 1897.

This is the second edition of the book of Dr. Morris, and and as it has been carefully revised and brought up to date, leaves little to be said on the subject and little to criticise. The typography is excellent and the paper is good. Although still a young man Dr. Morris may be classed as one of the pioneers on this subject and therefore speaks with an *ex cathedra* utterance. The book is of high order and compares very favorably with the other recent works on this subject.

Warner's Pocket Medical Dictionary of today, comprising pronunciation and definition of 10,000 essential words and terms used in medicine and associated sciences, by WILLIAM R. WARNER.

This is an excellent little dictionary and will be found very useful to students and others.

NECROLOGY.

DULANEY L. WASHBURNE, M.D., of Louisville, an alumnus and prosector of the University of Louisville is the subject of a warm tribute in the *American Practitioner and News*, April 3. He was born in Jefferson County, near Louisville, in 1855. He received his literary education in the public schools of that city. In 1880 he began the study of medicine under Prof. H. A. Cottell. As a student his progress was exceptionally rapid, and at the time of his graduation his rank was far above the average. He immediately found employment as assistant in the clinics of the University and teacher in the sub department. He served as assistant to Prof. John A. Ouchterlony in the medical clinic till 1886, when he was appointed prosector to the chair of anatomy and quiz master under Prof. J. M. Bodine. Here his proficiency, learning and energy found full scope and profitable exercise. He was a thorough anatomist, an expert dissector, and a teacher of unusual clearness and power. He was faithful and true in every obligation of life, the soul of honor, and the personification of industry and singleness of purpose. To this he added a kindness of heart and a cheerfulness of manner which caused him to be loved by all who knew him. He dies in the plenitude of ardent manhood, just as time had given him through study and experience that professional repose which insures the largest usefulness. The loss to friends, colleagues, students, and clientèle is irreparable; but in consolation, if not in compensation, he leaves behind him the priceless legacy of a stainless character, and a life devoted to science and the good of man.

Dr. JACQUES MAISONNEUVE, the most eminent Parisian surgeon of his day, has died at the age of 87. His death took place at his chateau of Missillac, where he had lived in retirement since 1890. Born at Nantes in 1810, Jacques Gilles Maisonneuve became resident medical officer at a Paris hospital, and afterward prosector at Clamart. In 1840, after a brilliant concours, Maisonneuve was nominated surgeon to the Cochin Hospital. Thence he transferred his services to the Pitié, and finally to the Hôtel Dieu. He soon became noted as the most skilful surgeon of his time, being particularly well known for the number of surgical instruments which he invented, and some of which, for instance the urethrotome, are still in use under his name. Maisonneuve was the first surgeon to perform the operation of resection of the hip-joint, while his conservative surgery was as sensational as his operative. In 1862 he showed before the Academy of Medicine the case of a young engineer whose leg he had preserved by the practical application of the physiologic theories of Flourens as to the reproduction of bone by the periosteum. In this case he removed the fractured tibia, retaining the periosteum, out of which a new tibia was formed. Since 1875 he had retired from the practice of his profession so entirely that many even in his own country thought him to be dead.

PROFESSOR STOUKOVENKOFF, Chair of Dermato-syphilography at Kiew. His sudden death in the midst of his inaugural address at the first meeting of the local physcio medical society which he had just founded, created a profound impression, at home and abroad. He was assiduous in his attendance at International Congresses and was always in the van of progress. His works on the treatment of syphilis with benzoate of mercury, etc., have made his name prominent.

LEONCIO ROS, M.D., a Cuban by birth and the youngest son of Salvador Ros, died in New York city, April 30, not quite a day after receiving burns caused by the explosion of an alcohol jar in the Woman's Hospital, while he and the apothecary were engaged in the sterilization of catgut ligatures. He was a Senior Assistant Surgeon on the House Staff.

W. C. PIPINO, M.D.—The following resolutions were adopted at a meeting of the Western Ophthalmological, Otological, Laryngological and Rhinological Association:

WHEREAS, We have heard with profound regret of the untimely death of our late confrère Dr. W. C. Pipino at his home at Des Moines, Iowa, last summer; therefore be it

Resolved, That our society, realizing the great loss we have sustained, desire to express in appropriate manner our appreciation of his worth as a member of our profession and society.

Resolved, That these resolutions be engrossed upon our society records and a copy furnished the medical journals representing our society, for publication.

J. D. C. HOIT,
FLAVEL B. TIFFANY,
Com.

NEW INSTRUMENTS.

NEW MECHANICAL SAW FOR SEPTAL OPERATIONS.

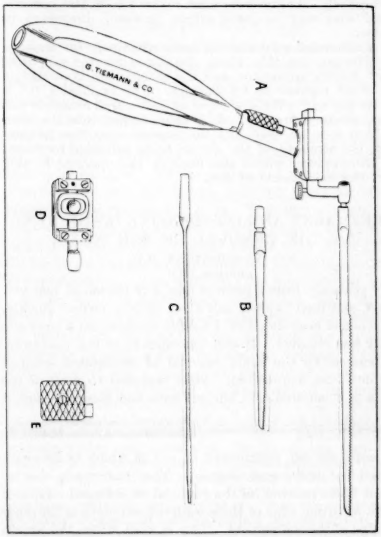
W. SHEPPEGRELL, A.M., M.D.
VICE PRESIDENT OF THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY, ETC.
NEW ORLEANS, LA.

In order to obviate the difficulty and fatigue of operating the nasal saw by hand, and to do this mechanically, by some mechanism which will enable us to use the saw not only with less exertion, but also with greater rapidity and precision, a number of mechanical saws have been devised. These saws are practically all operated by the electric dental motor.

For over a year I have endeavored to devise a saw for nasal operations which would combine simplicity, effectiveness, ease in application, facility of control, and would enable the operator to clearly follow the progress of the operation within the nasal cavity. After changing the model many times so that the last bears scarcely any resemblance to the first, I have at last devised a saw which combines the important features enumerated above, and which has done me excellent service. This saw may be attached to any of the dental motors now sold by dealers.

In this mechanical saw the handle, instead of being at right angles with the direction of the saw, is at an obtuse angle, thus giving it the shape which has been found the most convenient in the ordinary nasal saws, and which prevents the hand which holds the saw from coming too near the face of the patient. In order to permit this position, the driving wheels used in the other mechanical saws, which have been described, can not be used, and the backward and forward movement of the saw is obtained by means of a *ball* revolving at an eccentric (*D*). The flexible shaft is attached within the handle (*A*) and the obtuse angle also prevents the excessive bending of the flexible shaft and the friction which would result from this position.

The second advantage of this instrument is that the saw is at a higher plane than the transforming mechanism, so that it enables the operator to see more fully the work which is



The Scheppegrell Mechanical Saw. (Reduced one-half.)

being done by the saw within the nasal cavity. The third advantage is that the arrangement by which the saw blades are held in position enables the saw to be used not only upward and downward as in the mechanical saws which have been described, but also at any required angle. The fourth, and not least important feature, is, that the movement of the saw may be instantly started or stopped by the movement of a sliding thumbpiece (*E*) in the handle, and that its movement may likewise be increased from zero to a one-eighth inch stroke without arresting the movement of the motor.

In this saw the whole mechanism is made of steel so as to combine strength with lightness. The handle is of brass, the central part being hollow for lightness and for the admission of the handle of the flexible shaft, and the whole instrument is nickel plated. The movement of the saw is obtained by means of a steel ball which is attached to a shaft at an eccentric. This I believe is the first attempt to apply this principle to an instrument of this kind. The ball revolves within an oblong slot so arranged that it gives a backward and forward movement to the saw-holder, to which the saw is attached by means of a binding screw below the saw-holder and out of the line of vision. This mechanism is covered by a thin metallic

sheet which slides over the upper part of the instrument and is fixed by means of two small screws, thus protecting the mechanism from dust, etc.

At the upper part of the handle there is a sliding thumbpiece attached to a sleeve (*E*) which raises or lowers the ball in or out of the slot (*D*), thus giving complete control over the movement of the saw and enabling the operator to stop or start it instantly.

The same mechanism which starts and stops the saw may be used to regulate the range of movement from zero to one-eighth inch, the full stroke of the saw. This is effected by gradually raising the thumbpiece, and the action of the saw commences as soon as the upper part of the ball enters the slot, and the full stroke is obtained when the ball is fully within it. At the upper and lower portion of the slot (*E*) respectively, there is a lateral extension by means of which the movement of the instrument may be continued without pressure of the thumb in the upper position, and may be prevented from starting automatically in the lower position.

The instrument is provided with two saws, one long and the other short (*B*). As these saws are reversible on the horizontal axis, they may be used either upward, downward or otherwise.

This instrument may also be used effectively for massage work. The opening into which the saw is inserted will fit an ordinary Buck's applicator, and the mechanism is carried on in the same manner as for the saw. The applicator (*C*) is armed at the end with a pledget of cotton well attached and flattened at its extremity. It is then dipped into the solution which is to be used, and the massage may then be commenced, the strength of the stroke being adjusted by means of the thumbpiece, which also enables the operator to stop or start the movements at will.

AN EFFICIENT AND INEXPENSIVE INSTRUMENT FOR THE REMOVAL OF EAR WAX.

BY ALFRED HINDE, M.D.
CHICAGO, ILL.

Many years ago from a piece of iron wire heated at one end, flattened, and then twisted half a revolution, cooled quickly, and sharpened near its point, I hastily constructed a most efficient ear wax remover. It still continues to be the most suitable instrument for the rapid removal of inspissated cerumen with which I am acquainted. After repeated requests of the students of Rush Medical College I have had Messrs. Sharp & Smith copy my old instrument—a cut of which is herewith presented and its dimensions given. They have made one instrument blunt-pointed for the removal of softened wax, and one with a cutting edge of three millimeters length at the inner lip or edge of the instrument. This is used where the wax is of greater density and the plug is readily tunneled and removed piecemeal or extracted in one lump if too hard too be broken down.

Handle, length 5.5 centimeters; drain 4 millimeters. *Shaft*, length 8 centimeters; drain, 2 millimeters. *Twisted extremity* length 18 millimeters. This end consists of a half twist or revolution of a circle whose diameter is 5 millimeters. The end is thinned out and rounded so that it will the more readily engage the wax and as already stated, one of the instruments has a cutting inner lip.

MISCELLANY.

Physico-Chemic Prizes.—An English scientist has presented the Académie des Sciences with an endowment representing an income of 4,000 francs, to be awarded each year for the encouragement of new investigations in the physico-chemic sciences. The competition is international and may be retrospective. It will be known by the name of the donor, M. H. Wilde.

Moscow International Congress.—The *Progrès Méd.* announces that a special train with dining and sleeping cars will start from Moscow immediately after the Congress for a free excursion to the Caucasus, for regularly inscribed members of the Congress. The incidentals of the trip will not be over 150 francs per person.

Increase of Cancer.—Commenting on the recent statements of English statisticians that the deaths from cancer have increased from 177 per million inhabitants to 713 in the last 50 years, or 1 death from cancer in every 23, the French state that in Paris there is 1 death from cancer in every 19 or 20, according to the latest statistics published (1894).—*Nouv. Remèdes*, April 8.

College Exercises.—The annual commencement of the College of Physicians and Surgeons, Chicago, now a part of the University of Illinois, was held April 20. Eighty-three students were graduated.——The annual commencement of the College of Physicians and Surgeons, Baltimore, Md., was held April 15. There were eighty-three graduates.——The commencement exercises of the Beaumont Medical College were held April 15. There were thirty graduates.

Sale of Adulterated Whisky Violates Pure Drug Law.—The supreme court of Ohio says, in State v. Hutchinson, Feb. 2, 1897, that the United States Pharmacopeia is adopted by the statute of that State against the adulteration of food and drugs as an authoritative compilation, comprising accepted and known articles of drugs, with a description of their characteristics and qualities, and an approved standard of their strength and purity. Whisky is recognized by that name in the pharmacopeia, where its proper standard of purity and strength is laid down, and, therefore, the court holds, is a drug, within the meaning of the pure food and drug statute. Moreover, it maintains that the provisions of the statute relating to the sale of drugs are not limited in their application to sales by druggists and pharmacists, nor to sales for medicinal or pharmaceutic use; but they extend to all persons, without regard to their vocation, and make no distinction on account of the use intended to be made of the article. This renders the sale of whisky which is adultered, within the meaning of the statute, an offense against its provisions, though it be sold as a beverage or commercial commodity, and by one who is neither a druggist nor pharmacist. And while the statute referred to is mainly designed for the better preservation and promotion of the public health, the court holds that it is also directed against frauds resulting from the sale of inferior articles for prices which entitle the purchaser to those that are of the required standard.

Congenital Obliteration of the Esophagus, with other Malformations. Bowes (*British Medical Journal*, March 6, 1897, p. 586) has reported the case of a female child, born at term, after a normal labor, the fingers of whose hands pointed upward toward the elbows. The thumbs and both radii were wanting. At rest the outer side of the hand (that is the index finger and its metacarpal bone) rested against the forearm; but by manipulation the hands could be brought down at right angles with the forearm, but no further, and there was great resistance to supination. The ulna in each arm was a little curved and seemed shorter than normal. On the third day when the mother's breasts had filled with milk, it was noticed that the milk sucked by the child in nursing returned through the nares. No cause for this could be seen in the child's mouth and the progressive wasting led to a suspicion of esophageal obstruction. The use of the bougie was abstained from on account of frequent attacks of cyanosis with much choking, from which the child suffered. The child eventually died on the thirteenth day, and on postmortem examination the upper part of the esophagus was found to consist of a mere cul de sac extending about three-fourths inch below the level of the larynx, while the lower part, communicating with the stomach, opened into the trachea close to its bifurcation. The cardiac interventricular septum was deficient in its upper part.

Uric Acid a Factor in Hay Fever.—Dr. Norton L. Wilson of Elizabeth, N. J. (*N. Y. Medical Journal*), believes that in the production of hay asthma there are three important factors: 1, the predisposing constitutional condition; 2, an external irritant; 3, a pathologic condition of the nasal mucous membrane. He asks, a neurosis being present, may not the condition be

due to uric acid irritation, since neurasthenia and lithemia go hand in hand? External irritants, such as the emanation from certain plants, dust, odors, pollen or any other mechanical irritant may be superadded disturbers, so also polypi, spurs or hypertrophies may constitute the third factor. During the attack he concludes that it is better to free the blood from uric acid by the administration of an acid. "Aromatic sulphuric acid or phosphoric acid acts very well. After freeing the blood, gradually extract the uric acid from the tissues by two or three grain doses of sodium salicylate (given three times a day), cut off the acid-producing foods, such as meat, beer, wine, cider, lemonade, etc." Look after hygienic measures, polypi, etc. Begin the crusade against uric acid six weeks or two months before the attack. For local relief Dr. Wilson advises menthol and camphor in liquid albolene sprayed into the nostrils. Where this method is intolerable he would use a 6 or 10 per cent. solution of cocain and then coat the turbinate region with a thin film of flexible collodion. For the itching of the conjunctiva he would use hot water or yellow ointment. He claims, however, to have hinted rather than given any definite plan of treatment. As regards the asthmatic symptoms three of his patients have suffered quite as much as in former years, but in the next season he shall begin earlier and hopes thereby at least to mitigate their symptoms.

Experts May be Cross-examined from Books.—Although the contents of scientific books can not be read to a jury for the purpose of proving the facts or establishing the deductions stated in them, the appellate division of the supreme court of New York holds, in Egan v. Dry Dock, E. B. & B. R. Co., Dec. 1, 1896, that whenever a person holds himself out as an expert witness, and undertakes to give his opinion upon any scientific matter, it is not only proper to examine him as to the ground of his opinion, but his qualifications as an expert may be tested upon cross-examination in any way which will enable the jury, who are to pass upon the weight to be given to his testimony, to judge intelligently about it. For that purpose, the court says that it is perfectly proper to ask him whether or not the opinion he has expressed agrees with the opinion of other people who are conceded to be learned upon the same subject, because, if an expert witness admitted that the opinion which he expressed was contrary to the opinion which was held upon the same subject by other men who were acquainted with the same science, it might, unless the reasons which he gave for his opinion were satisfactory, tend strongly to detract from the weight which that opinion would otherwise receive. For the same reason, if the witness admitted that text writers of acknowledged authority had expressed opinions contrary to that one which he gave in regard to the matter under examination, that might go to detract from the weight to be given to such testimony. Therefore it has been the custom, at least in the State of New York, to call the attention of expert witnesses, upon cross-examination, to books upon the subject, and ask whether or not authors whom he admitted to be good authority had not expressed opinions different from that which was given by him upon the stand. The reference to books in such cases is not made for the purpose of making the statements in the books evidence before a jury, but solely for the purpose of ascertaining the weight to be given to the testimony of the witness. The extent to which such examinations may go is very largely at the discretion of the court.

The Alleged Origin of Life Insurance.—Under the title of "How Life Insurance was Suggested," the *Insurance Post* publishes the following: A game of cards suggested the system of life insurance. More than two hundred years ago a Flemish nobleman attempted to divide equitably the money staked upon an interrupted game of chance. He was assisted in the task by a Jesuit priest, one of the most accomplished mathematicians of any age. Pascal solved the problem, and in doing so enunciated the "doctrine of probabilities," or laws governing insurance of all kinds. The theory is illustrated by the throwing of dice. When a single die is thrown the chance of throwing up an ace is precisely one out of six, or one out of the total number of sides or faces. In a large number of throws the chances are in the same proportion. From this Pascal laid down the proposition that results which have happened in any given number of observed cases will again happen under similar circumstances, provided the number be sufficient for the proper working of the law of average. The life of a single individual is one of the greatest uncertainties, but the duration, or rate of mortality, of a large number of individuals may be depicted with great accuracy by comparison with the observed results among a sufficiently large number of persons of similar ages and occupations, and similar to climatic influences.

Election of Officers.—At a recent meeting of the Western Ophthalmological, Otological, Laryngological and Rhinological Association the following officers were elected: President, B. E. Fryer, Kansas City, Mo.; first vice-president, J. Elliott Colburn, Chicago, Ill.; second vice-president, F. M. Rumbold, St. Louis, Mo.; third vice-president, A. E. Bulson, Jr., Ft. Wayne, Ind.; secretary, Hal Foster, Kansas City, Mo.; treasurer, W. L. Dayton, Lincoln, Neb. The next annual meeting will be held in Chicago, Ill., on April 7 and 8, 1898.

A Rare Variety of Congenital Occlusion of Duodenum and Rectum.—Hess (*Deutsche medicinische Wochenschrift*, April 1, 1897, p. 218) has reported the case of male child, born three or four weeks before term, without an anal orifice and unable to pass urine. The prepuce of the penis was represented by a thin, tense, discolored membrane covering the orifice of the urethra and on rupture of which urine escaped. The bladder was apparently enlarged. At the insertion of the scrotum into the perineum the skin was thrown into the slight stellate folds suggestive of a rudimentary anus. Vomiting occurred and the child was unable to take food. In the hope of establishing an outlet from the bowel the pelvic tissues were divided through the perineum but the rectum could not be reached in this way. The establishment of an artificial anus was deferred until the following day, but hemorrhage took place from the wound already made and amid signs of exhaustion death took place. On postmortem examination the stomach was found to be practically normal, with a well-defined pylorus. Continuous with the latter was a large blind sac almost equal in size to the stomach, but evidently the first part of the duodenum. Into this emptied the common bile-duct. There was, however, no communication with the remainder of the intestine. In the situation where the duodenum normally passes beneath the mesentery the continuation of the bowel was found, being attached to the peritoneum by numerous adhesions. The bowel at this point was of smaller caliber than farther on and into it emptied the pancreatic duct. The remainder of the small intestine exhibited no peculiarity. The large intestine was somewhat dilated and terminated in a fibrous band at the level of the bladder, to which it was attached. This portion of the bowel contained meconium, in which the presence of biliary matters could be demonstrated. The walls of the bladder were thickened and adherent to the anterior abdominal wall. In explanation of the malformations present in this case the occlusion of the rectum is attributed to a not uncommon defect in development, while that of the duodenum is attributed to twisting of the bowel at this point and consequent separation of the parts on either side of the constriction.

New York.

THE AMBULANCE SYSTEM IN THE GREAT PARADE—The formal surrender to the city on April 27, of the mausoleum by the Grant Memorial Fund Committee was a successful procedure. The day was cold, cloudy and marked by the prevalence of very high winds. Only a few trivial accidents occurred and they were mostly due to horses frightened by applause or flying hats and programs. The estimate that the procession mustered 60,000 men is at least approximately correct, but the ambulance system was so perfect in detail that it could afford relief in three minutes to an individual dropping from the ranks or in half an hour could extricate a crowd from a collapsed stand. It is well to add that the spectators were, as is usual in American cities, in the best of humor and the police, fire, military and public parks departments were in harmony as well as under the best discipline.

Detroit.

AT A REGULAR MEETING of the Wayne County Medical Society, held on Thursday evening, April 29, Dr. S. O. Kulick read a paper on the subject of "Antitoxin in Diphtheria." The author of the paper stated that his first treatment of diphtheria by antitoxin was begun somewhat experimentally when he was called to see a pair of twins suffering from the disease. These babies, the author stated, were as near alike as any two children could be, so he determined to use the antitoxin on one case and give iron and potassium chlorate to the other without using antitoxin. Accordingly he injected 1000 units hypodermatically in Case No. 1, and prescribed for No. 2 a mixture of iron and chlorate of potash. The result was that case No. 1 was decidedly better on the third day, while case No. 2 did not show any decided improvement until the thirteenth day. This was a strong argument to the author in favor of antitoxin and he accordingly determined to use it thereafter. He has done so, with the following results: Out of fifty-four cases treated three died. Two of these died within three hours after his first visit, from laryngeal croup. Intubation had been advised but had not been accepted. The third death was that of a child who had been sick three days when the doctor was called. The patient had been treated by another physician with calomel and was salivated. The case was malignant. Fifteen hundred units of antitoxin were injected and the iron mixture was administered *per os*. Peroxid and other antiseptic treatment was given the nasal passages. On the fifth day the membranes were shrunken and black and the nose bled freely. He died on the ninth day. Antitoxin had been used about every sixteen hours for several days. In this case it failed to benefit. The author of the paper related the history of another case, that of a girl 5 years old who had been about three weeks sick with measles before he was called. The nose and pharynx were filled with pseudo-membrane. Fifteen hundred units were injected, repeated again in twelve hours and again on third day. On the fourth day stenosis of larynx was so great that the patient became suffocated. The doctor having nothing else at hand, inserted a catheter into the larynx and was gratified to see the patient begin to revive. In forty minutes the child became conscious and began vomiting. He removed the catheter, when she immediately vomited up a large mass of membrane. She went on to complete recovery. In none of his cases did he find any untoward effect from the use of the antitoxin, and in all but the few cases mentioned the injection was followed by a very noticeable change for the better in a few hours. The doctor uses the iron mixture in all cases as adjunct to the antitoxin and washes out the nares. Dr. Gordon gave the history of a case of puerperal eclampsia after childbirth. He had been called hastily to see the case and found a doctor (?) in attendance, who he afterward learned belonged to the school of Christian science healers. The woman was in convulsions, which had been so severe that the right arm had been dislocated at the shoulder. The Christian science gentleman sat there looking at his patient quite unconcernedly without making any other attempt than that possibly of silent prayer to relieve the spasms. Dr. Gordon immediately used chloroform, morphin and veratrum viride. As soon as possible he reduced the dislocation. The woman made a good recovery.

THE DETROIT MEDICAL AND LIBRARY ASSOCIATION at its regular meeting Monday, April 26, listened to an interesting paper by Dr. F. L. Newman, entitled, "Incontinence of Urine in an Adult, with Report of a Case." In presenting his paper the doctor lamented the fact that for the last ten years there had only been one or two papers on this important subject in all of the leading medical journals of our country. He touched particularly upon incontinence of urine in young girls, commenting upon the treatment, taking in electrolysis, hygiene, massage and the treatment with different drugs. In speaking of the surgical treatment he noted the stretching of the urethra and the different operations upon the clitoris. He cited different cases which had been under treatment for one year and longer by the different methods. The electrolysis had been carried out with great thoroughness, locally in contact with the urethra or per vaginal route. He described one case, as a typical example of several cases he had seen and told of what treatment had been used, the whole line of medical and some surgical procedures. In conclusion, the author, while not offering any line of treatment himself, said that the profession at large was not able to cope successfully with this difficulty; that most cases of nocturnal incontinence are due to the hypertonicity of the urethra muscle, and in the variety where there is an atonic condition the treatment is least promising.

THE STATE OF MICHIGAN now has another law added to its list of "medical" laws. The "osteopathy" bill was introduced by Senator Barnum of Grand Rapids, Feb. 24, 1897, taken up March 18, referred to the committee on public health, reported by the committee March 19 and has become a law, being signed by the Governor the day after it passed the House of Representatives. In the Senate the bill passed by almost a unanimous vote. In the House the vote was 73 in favor, 0 against. The text of the bill is as follows:

A Bill regulating and licensing the practice of osteopathy in the State of Michigan.

SECTION 1.—The People of the State of Michigan enact, That any person having a diploma regularly issued by the American school of osteopathy of Kirksville, Mo., or any other legally chartered and regularly conducted school of osteopathy, who shall have been in personal attendance as student in such school for at least four terms of not less than five months each before graduation, shall be authorized to treat diseases of the human body according to such system without the use of medicine or surgery, after having filed such diploma for record with the clerk of the county in which such person proposes to practice, and having filed with such clerk an affidavit that the diploma is genuine, and that he or she is the person to whom the same was issued, and that all provisions of this act were fully complied with before the issuing of such diploma; whereupon the clerk shall record such diploma in a book to be provided by him for that purpose, and shall indorse upon such diploma the date of filing and recording the same, for which he shall receive from such person a fee of one dollar. SECTION 2. Any person who shall practice or pretend or attempt to practice the system, method or science of osteopathy in treating diseases of the human body within this State without having complied with the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum of not less than fifty nor more than one hundred dollars for each offense: *Provided*, That nothing in this act shall be construed as prohibiting any legally authorized practitioner of medicine or surgery or any other person in this State from curing or relieving disease with or without drugs, or by any manipulation by which any disease may be cured or alleviated.

THE PUBLIC SERVICE.

Army Changes. Official List of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from April 24 to 30, 1897.

Capt. Frank R. Keefer, Asst. Surgeon, U. S. A. (Washington Bks., D. C.), is granted leave of absence for four months and fifteen days, to take effect on or about May 27, 1897, with permission to go beyond sea.

Change of Address.

Anderson, B. C., from Galesburg to 502 Seventh St., Rockford, Ill.
Bennett, Alice, from Thomasville, Ga., to Wrentham, Mass.
Bean, W. B., from Latour to LaGrange, Ark.
Current, O. E., from Albany to Farmland, Ind.
Cool, R. H., from Oakland to 300 Stockton St., San Francisco, Cal.
Cook, J. F. D., from Chicago, Ill., to Doland, S. Dak.
Crawford, S. K., from 471 S. Paulina St. to 440 S. Hermitage Av., Chicago, Ill.
Dental Review, from 66 Madison St. to 96 State St., Chicago, Ill.
De Long, W. M., from Emporia, Fla., to Emporium, Pa.
Elmer, E. O., from 61 Francis Av. to 641 Park St., Hartford, Conn.
Freudenthal, W., from 943 to 1003 Madison Av., New York, N. Y.
Gerhard, G. S., from Phoenix, Ariz., to Ardmore, Pa.
Gapen, Clarke, from Kankakee to 641 Boulevard Pl., Chicago, Ill.
Kranegrill, D., from Terre Haute to Chesterton, Ind.
May, L. R., from 235 State St. to 6605 Stewart Av., Chicago, Ill.
Pry, E. T., from Douglas to Pine Bluff, Ark.
Perkins, D. S., from 711 Genesee Av. to 1273 Euclid Av., Cleveland, Ohio.
Potts, C. N., from Colorado Springs to Silverton, Colo.
Scates, D. W., from Waco to Waxahachie, Texas.
Todd, F. Walton, from Camp Capitola to Occidental Hotel, San Francisco, Cal.
Watson, F. W., from Tiptonville to Union City, Tenn.

LETTERS RECEIVED.

American Sports Publishing Co., New York, N. Y.; American Therapeutic Co., New York, N. Y.; Ashby, T. A., Baltimore, Md.
Bashore, Harvey B., West Fairview, Pa.; Boulanger, P. P., Quebec, Canada; Belitz, A., Evanston, Ill.; Borland, E. B., Pittsburg, Pa.; Barnes, F. H., Stamford, Conn.; Biddle, James G., Philadelphia, Pa.; Bell, Samuel, Newberry, Mich.
Chapman, O. S., Minneapolis, Minn.; Cain, J. S., Nashville, Tenn.; Carey, A. W., Wild Rose, Wis.
Elliott, A. R., New York, N. Y.
Ferguson & Goodnow, Chicago, Ill.
Gould, George M., Philadelphia, Pa.
Home for Inebriates, Stamford, Conn.; Hotel Walton, Philadelphia, Pa.; Hare, H. A., Philadelphia, Pa.; Hunt, Mary H., Boston, Mass.; Holmes, Frank W., New York, N. Y.; Hummel, A. L., Adv. Agency, New York, N. Y.
Irwin, J. L., Detroit, Mich.
Knopf, S. A., New York, N. Y., (2); Klein, Henry, Chicago, Ill.
Langdon, Stanley H., Norwood, Ohio; Lord & Thomas, Chicago, Ill.
Miller, J. H., Pana, Ill.; Mulford, E. R., Mokena, Ill.; Montgomery, E. E., Philadelphia, Pa.; McMurtry, L. S., Louisville, Ky.; Medical Dept., Tulane Univ., New Orleans, La.; Mullen, T. R., Marcus, Iowa; May, W. L., Guin, Ala.; Mulford, H. K. Co., Philadelphia, Pa.
Parker, W. T., Groveland, Mass.; Pusey, Wm. Allen, Chicago, Ill.
Reed, R. Harvey, Columbus, Ohio; Rardin, J. S., Portsmouth, Ohio.
Savage, G. C., Nashville, Tenn.; Stone, C. L., Chicago, Ill.; Skinner, W. T., Glasgow, Del.
Taylor, J. A., Montpelier, Ind.
Van Note, Wm. B., Lima, Ohio.
Wright, A. L., Carroll, Iowa; Wiley, C. R. (Mrs.), Vineland, N. J.